

XXXIII.—*The Malacoderm Genera Prionocerus and Idgia, and their Sexual Characters [Coleoptera]*. By G. C. CHAMPION, F.Z.S.

[Plates XI. & XII.]

THIS paper is based upon a study of the species of *Prionocerus*, Perty, and *Idgia*, Cast., contained in the National Collection at S. Kensington, in the Hope collection at Oxford, and in that of Mr. H. E. Andrewes, the last-named being rich in Indian forms *, including types or co-types of various insects determined by Bourgeois and Gorham. The British Museum material includes the types of three Indian species belonging to the genus *Idgia*—*Cantharis melanocephala*, Fabr., *Telephorus assimilis*, Hope, and *Thaccona dimelæna*, Walk.—which have been omitted from or are wrongly placed in our catalogues; many interesting Malayan forms captured by Mr. Doherty or Mr. G. E. Bryant; and very extensive series of several species from the highlands of Eastern and Central Africa. The two genera here studied, which Lacordaire, Redtenbacher, and Bourgeois were inclined to treat as one, are restricted to Africa and Asia; and upwards of sixty species have been described as belonging to them, about half of these having been named during recent years by Pic.

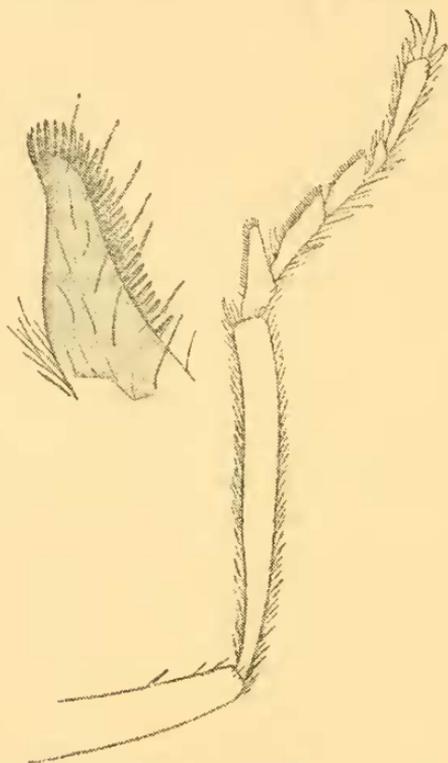
The sexual characters of the forms enumerated in this paper are described in detail, important tarsal and other structures having been apparently overlooked by all writers on these insects, including Bourgeois, who has given a good deal of attention to the subject. Another mark of distinction, unnoticed in our text-books, and common to the two sexes, is the single spur to the anterior tibiæ, the absence of the second spur being characteristic of the Edemerid genera *Nacertes* and *Xanthochroa*, the species of which bear a superficial resemblance to many *Idgiæ*. The males of *Prionocerus* and *Idgia* have, in common, a closely, regularly pectinate, black comb along the inner edge of joints 1-3 of the anterior tarsi, which is quite conspicuous in the yellow-legged forms †. A similarly pectinate comb

* The types of the new species described from his collection and a selection of the others have been presented by Mr. Andrewes to the Museum.

† The males of one or two Lampyrids allied to *Phengodes* have a row of scattered teeth on the first joint.

on the front feet is also present in the corresponding sex of the Dasytid-genus *Lobonyx*, Jacq. Duval, in which, however, it is restricted to joints 2 and 3, the basal joint being relatively shorter than in the genera here studied; this structure, clearly visible in males of *Lobonyx* captured by myself in Spain and Algeria, has been figured and described by Duval (Gen. Coleopt. Europ. iii. p. 183, pl. 46. fig. 225 c).

Other ♂-characters, apart from the usually larger eyes, the stronger serration of the antennæ in *I. viridipennis* and



Idgia plectrophora, sp. n., anterior leg, ♂ (cf. p. 330).

belli, and the emargination of the fifth ventral segment, have been detected in certain cases, such as the thickening of the posterior femora, the curvature or sinuation of the posterior tibiæ, the acutely produced posterior trochanters, the form of the basal joint of the anterior and intermediate tarsi, &c.

In one species, *I. plectrophora*, all the tibial spurs are longer than usual in both ♂ and ♀; and in another the

upper posterior tibial spur is longer than the lower one. *I. flavirostris* and one or two others have the tarsal claws widened to near the middle, instead of at the extreme base only, but there is no trace of a membranous lobe in any of these insects. The numerous testaceous forms with the head in part or entirely, and the apices of the elytra, black have given me the greatest difficulty in distinguishing the species; and it has been found impossible in some cases to separate them at all satisfactorily till the ♂-genital armature, or the sixth ventral segment, has been examined. These structures have been dissected in nearly all the species of which the males are represented in the collections before me*. The tegmen (*sensu* Sharp and Muir) is furnished with two elongate, digitiform or spoon-shaped lobes, convex and almost smooth above, concave beneath, together forming an open tube, the lower outer edge of each (lateral) lobe being more or less ciliate or finely denticulate, and sometimes sinuate or emarginate before the tip. The median lobe † (=penis-sheath or aedeagus of some authors) consists of a long, acuminate tube, usually curved downward at the tip, but peculiarly shaped in the two Arabian forms here described (*cf.* Pl. XI. figs. 9*a* and 10*a*), the opening from which the membranous sac or intromittent organ is extruded being placed on the dorsal aspect at some distance before the tip. The sixth ventral segment is normally triangularly emarginate in ♂, but in one species at least (*cf.* Pl. XII. fig. 49*a*) it is so deeply bi-excised as to appear trilobed.

One or two species have the sutural angle of the elytra strongly hooked or dentiform (*cf.* Pl. XII. fig. 50), a character peculiar to the ♀, as in the American genus *Astylus*. Figures of the ♂-armature of nearly all the species here enumerated are given on the accompanying Plates.

The "Prionocerides," forming a subtribe of the "Melyrides" of Lacordaire based upon *Prionocerus* and *Idgia*, should be treated as a separate group or family of the Malacodermata, distinguished by the emarginate eyes, the single spur to the anterior tibiae, the simple tarsi and claws (the latter at most widened in their basal half), the more or less curved or excavate eleventh antennal joint, and the closely pectinate tarsal joints 1-3 of the male.

* They have all been made by Mr. A. Cant.

† *Cf.* Sharp and Muir, Trans. Ent. Soc. Lond. 1912 and 1918. The term "penis-sheath" has been used by me for this organ in a recently published paper on the genus *Astylus*.

PRIONOCERUS.

Prionocerus, Perty, Obs. Coleopt. Indiæ Orient. p. 33 (1831).

This genus, type *P. cœruleipennis*, Perty, a common Malayan insect, is here restricted to the species with the antennæ short and very strongly serrate, and the apical joint deeply excavate, in the two sexes. *P. bicolor*, Redt., belongs to it, and possibly one or two other Asiatic forms not represented in the collections before me. The two mentioned have a different general facies from the typical *Idgia*, due to their small, narrow head and short, strongly serrate antennæ.

1. *Prionocerus cœruleipennis*.

Prionocerus cœruleipennis, Perty, Obs. Coleopt. Ind. p. 33, t. 1. fig. 4 (1831); Bourg. Ann. Soc. Ent. Fr. 1890, p. 175; Gorch. Ann. Soc. Ent. Belg. xxxix. p. 318 (1895).

♀. *Prionocerus fuscipennis*, Lewis, Ann. & Mag. Nat. Hist. (5) iv. p. 464 (1879).

♂. *Prionocerus forticornis*, Schauf. Horæ Soc. Ent. Ross. xx p. 126 (1887).

♀. *Prionocerus brevicornis*, Schauf. l. c.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge. Genital armature (Pl. XI. fig. 1): lateral lobes very long, narrow and somewhat hooked at the tip; median lobe broad, abruptly acuminate and sinuate at apex.

Hab. INDIA; BURMA; MALAYAN REGION generally; ANDAMAN IS.; JAPAN; E. AFRICA, Usagara (*S. A. Neave*), Usambara (*Mus. Brit.*); AUSTRALIA (sec. *Schaufuss*).

Bourgeois gives the sexual characters of this species at considerable length, but he omitted to notice the structure of the ♂ anterior tarsi. The elytra vary in colour—blue, violaceous, or green, rarely æneo-fuscous. The two forms named by Schaufuss, already sunk as synonyms by Bourgeois, are from the Philippines and Macassar respectively. *P. fuscipennis*, Lewis, from Yokohama, is an immature ♀, with the elytra more obscurely coloured than usual, some specimens from Borneo and Manila in the British Museum being similar in that respect. A monstrosity, ♂, with three antennæ and distorted elytra, has been figured and described by Keyl (*Tijdschr. voor Ent.* lvi. pp. 1-12, pls. 1, 2, 1913). *P. cœruleipennis* has doubtless been introduced into E. Africa. About 200 examples are contained in the collections before me.

2. *Prionocerus bicolor*.

Prionocerus bicolor, Redt. Reise der Novara, ii. p. 109, t. 4. fig. 3 (1868); Gorh. Ann. Soc. Ent. Belg. xxxix. p. 318 (1895).

Idgia (*Prionocerus*) *bicolor*, var. *notaticollis*, Pic, L'Echange, xxvi. p. 53 (1910).

♂. Anterior tarsi and genital armature (Pl. XI. fig. 2) as in *P. cæruleipennis*, Perty; except that the median lobe is less sinuate at the tip.

Hab. INDIA, Sikkim, Allahabad; BURMA; SIAM; MALAYAN REGION generally.

This insect is extremely closely related to *P. cæruleipennis*, and occurs with it in some of the Malayan localities, differing from that species in having the antennæ a little less dilated in the two sexes, and the elytra wholly fulvous. The type was from Java. *P. bicolor* has been found in numbers by Mr. H. Stevens at Gopaldhara, in the Rungbong Valley, Sikkim, unaccompanied by its near ally. Females preponderate in the series before me. A variety from Tharrawaddy, Burma, with the scutellum yellow has been recorded by Gorham (*l. c.*), and another, from Sumatra, with a dark median patch on the prothorax, by Pic.

IDGIA.

Idgia, Castelnau, in Silberm. Rev. Ent. iv. p. 27 (1836); Hist. Nat. Ins. Coleopt. i. p. 275 (1840).

Deromma, Kollar and Redtenbacher, in Hügel's Kaschmir, iv. 2, p. 512 (1844).

Diprosopus, Mulsant, Mém. Acad. Lyon, i. p. 209 (1851).

Thacoma, Walker, Ann. & Mag. Nat. Hist. (3) iii. p. 260 (1859); Gemminger and Harold, Cat. Coleopt. vii. p. 2179 (1870) [sub *Edemeridæ*].

The generic name *Idgia*, type *I. terminata*, Cast., from Senegal, is here used for all the *Prionocerids* with the antennæ filiform or moderately serrate, at least in ♀. The structure of the anterior tarsi is precisely similar to that of *Prionocerus*, and the form of the genital armature of the males also shows their close relationship. The superficial resemblance of many of the species to the *Edemerid* *Nacerdes melanura*, L., and the Telephorid *Rhagonycha fulva*, Scop. (= *melanura*, Oliv.), is very striking, one, indeed, having been described as belonging to the first-named group. The Museum material includes, in addition to species here enumerated, a very elongate, large, subopaque, blue form,

coloured like the Chinese *I. hügelii*, Redt., represented by a single damaged example, which must be left unnamed for the present, no locality-label being attached to it.

African Species.

Prothorax (except in *I. dimidiata*, var. *tripartita*, Pic) and elytra testaceous, the apical portion of the latter to a greater or less extent black.

Tibial spurs long.....	No. 1.
Tibial spurs short.....	Nos. 2-6.
Prothorax and elytra nigro-cyaneous.....	No. 7.
Prothorax fulvous, the elytra black or nigro-cyaneous....	No. 8.

1. *Idgia plectrophora*, sp. n.

Extremely like *I. (Prionocerus) dimidiata*, Gerst., and similarly coloured, and only separable therefrom by its structural characters: tibial spurs long, including the one on the anterior pair, in both sexes, strongly developed in ♂; anterior tarsal joints 1 and 2 elongated, 1 slightly curved, smooth and almost glabrous at the base, and produced into a dentiform lobe at the inner apical angle, 4 small, narrow, the comb on 1-3 extending along the greater part of their length; joint 1 of intermediate and posterior tarsi compressed, slightly curved, and smoother at the base. Genital armature (Pl. XI. fig. 3): lateral lobes long, broad, rounded at tip; median lobe narrow, drawn out into a long, slender, downwardly-curved point.

Length (excl. head) 9-13, breadth $3\frac{1}{2}$ - $4\frac{1}{2}$ mm. (♂ ♀.)

Hab. E. AFRICA, Tabora (*ex coll. Fry*: type, ♂), Salt Lake—Wawamba (*Scott Eliot*), East shore of Victoria Nyanza near Karungu, Lusinga Isl., Kisumu (Port Florence), Upper Kuja valley, S. Kavirondo (*S. A. Neave*), S. Masai Reserve (*T. J. Anderson*), Mogorr River (*A. O. Luckman*); UGANDA, W. and S.E. Ankole (4400-5000 ft.), and S. of Lake George (*S. A. Neave*), Maramu and Kamwezi (*C. H. Marshall*).

The series examined includes upwards of 250 examples, showing but little variation, the black apical patch rarely reaching forward to the middle of the elytra, the prothorax constantly fulvous, the armature of the tibiæ and tarsi perfectly constant, the females separable from the same sex of *I. dimidiata* by the longer tibial spurs. The genital armature of several males has been examined.

2. *Idgia dimidiata*.

Prionocerus dimidiatus, Gerst. Arch. für Naturg. xxxvii. p. 56 (1871)¹;
 Von der Decken's Reise in Ost-Afrika, iii. 2, p. 158, t. 8. fig. 11
 (1873)².

Elongate, depressed, slightly widened posteriorly; thickly pubescent, the elytra also with scattered, long, seriatly arranged, erect black setæ, the head and prothorax with numerous curled black bristly hairs, those behind the eyes projecting laterally; black, the prothorax and scutellum, and the elytra with from one-fourth to nearly one-half their length, fulvous or luteous, the apical patch often with a bluish or violaceous lustre. Head polished, with a few small scattered punctures, the labrum large, transverse, angularly dilated laterally; eyes very large in ♂, a little smaller in ♀, well separated in both sexes; antennæ moderately long in ♂, shorter in ♀, joints 3-11 longer than broad, widened, subserrate, 7-10 decreasing in length, 11 much longer than 10, concave on its inner face. Prothorax as long as broad, sparsely punctured. Elytra long, densely granulato-punctate, the seriatly arranged setigerous impressions each preceded by a minute tubercle, the apices obtuse, in some specimens angulate at the sutural angle.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge, 1 simple, scarcely longer than 2, 4 small, shorter and narrower than 3; joint 1 of intermediate and posterior tarsi simple, slightly longer than 2; posterior tibiæ feebly curved. Genital armature (Pl. XI. fig. 4): lateral lobes long, broad, rounded or obtuse at tip; median lobe gradually narrowed, drawn out into a very long, slender, curved, somewhat sinuate point at apex.

Length (excl. head) $9\frac{1}{2}$ - $13\frac{1}{2}$, breadth $3\frac{1}{2}$ -5 mm. (♂ ♀.)

Hab. ABYSSINIA, Higo Samula (*R. J. Sturdy*); E. AFRICA, Mombasa¹ [type], Masongaleni (alt. 3000 ft.), Kibwezi (alt. 3000 ft.), M'gori Valley in S. Kavirondo (alt. 4200 ft.), Mtito Andei (alt. 2500 ft.), Makindu (alt. 3300 ft.), Voi (alt. 1800 ft.), Usangu district (alt. 3500-4500 ft.) (*S. A. Neave*), Lulanguru (*G. D. H. Carpenter*), Samburu (*C. S. Betton*); NYASALAND, Masai (*Mus. Brit.*), Mombera district (alt. 4000 ft.), Lilongwe district in Central Angoniland (alt. 4000-5000 ft.) (*S. A. Neave*); N.E. RHODESIA, on road Fort Jameson-Lundazi (alt. 4000 ft.), Upper Luangwa River (*S. A. Neave*); MASHONALAND, Salisbury (*G. A. K. Marshall*); ZULULAND (*Mus. Brit.*); NATAL (*Mus. Brit.*), Greytown (*H. B. Marley*), Estcourt (*G. A. K. Marshall*), Port Natal (*Boheman*²); ? S. AFRICA, Cape of Good Hope (*Mus. Brit.*).

Var. α . The scutellum more or less infuscate and the apical half of the elytra black. (σ \textasciitilde \textasciitilde .)

Hab. E. AFRICA, W. slopes of Kenya on Meru-Nyeri road (alt. 6000-8500 ft.) (*S. A. Neave*); NYASALAND, Valley of Rukuru, Karonga district (alt. 2000-4000 ft.) (*S. A. Neave*).

Var. β . The prothorax and scutellum black, the prothorax sometimes rufo-variegate or fulvous with an indeterminate black patch on each side of the disc. (σ \textasciitilde \textasciitilde .)

Idgia tripartita, Pic, Bull. Soc. Ent. Fr. 1912, p. 300³.

Hab. E. AFRICA³ (*C. S. Betton*), 30 miles from Magadi Junction (*F. G. Hamilton*), Kibwezi (alt. 3000 ft.), Nairobi to Fort Hall Road (alt. 4500-5000 ft.) (*S. A. Neave*); N. NIGERIA, Panyam in Banchi Province (*G. F. Fox*).

About 200 examples of this species are contained in the Museum collection, including specimens from the two localities quoted by Gerstaecker, Mombasa and Natal. The variety *tripartita* was received with the typical form from Kibwezi, five of the thirty examples before me being intermediate, having the prothorax partly red. The long series from the slopes of Kenya (6000-8500 ft.), and those from the Karonga district of Nyasaland are also darker than typical *dimidiata*, having the apical half of the elytra and the scutellum black, these specimens (39 \textasciitilde \textasciitilde , 5 σ \textasciitilde \textasciitilde) forming a transition to the still darker *tripartita*. Some of the southern examples (σ \textasciitilde \textasciitilde) have the elytra distinctly angulate at the sutural angle, a character apparently of no great importance. Males of each form have been dissected, showing a similar genital armature. The tuft of long hairs behind the eyes mentioned by Pic in his description of *I. tripartita* is to be found in all the allied African species known to me. His *I. nigricollis* (1906), from Sierra Leone, is not represented in the collections at the Museum.

3. *Idgia terminata*.

Idgia terminata, Cast. Hist. Nat. Ins. Coleopt. i. p. 275 (1840).

σ . Elongate, rather narrow, shining, thickly pubescent, and also set with scattered, curled or erect, blackish bristly hairs, those on the elytra seriatly arranged; testaceous, the head (the labrum excepted), joints 5-11 of the antennae, a large patch at the apex of the elytra, the knees, tibiae, and tarsi black. Head as wide as the prothorax; eyes

extremely large, almost contiguous; labrum transverse, subtrapezoidal, moderately large; apical joint of maxillary palpi long, cultriform; antennæ moderately long, joints 4-10 gradually increasing in width and decreasing in length, 10 longer than broad, 11 about the length of 9 and 10 united, curved, hollowed on its inner face. Prothorax longer than broad, very uneven, rugulose punctate. Elytra long, rounded at the tip; densely, rugulose punctate. Anterior tarsal joints 1-3 with a narrow black comb on their inner edge. Genital armature (Pl. XI. fig. 5): lateral lobes broad, short; median lobe drawn out into a very long, slender, strongly curved point.

Length (excl. head) 9, breadth 3 mm.

Hab. W. AFRICA, Senegal (*Mus. Brit.*).

A male in the Museum, labelled "*Epiphyta melanura*, Dj., Senegal," agrees with the brief diagnosis of *I. terminata*, Cast., from that locality, and a longer description is given from the specimen before me. It is separable from *I. longipalpis* by the smaller labrum, the shorter, less dilated antennæ, and the wholly testaceous prothorax. *I. abyssinica* has a much larger labrum, a smaller head, a narrower apical patch, &c. The similarly-coloured *Prionocerus senegalensis*, Cast., under which *E. melanura*, Dej., is placed as a synonym in the 'Munich Catalogue,' should have the antennæ serrate as in the type-species of that genus.

4. *Idgia apicalis*.

Prionocerus (Idgia) apicalis, Gerst. Arch. für Naturg. xxxvii. p. 56 (1871); Von der Decken's Reise in Ost-Afrika, iii. 2, p. 159 (1873).

♂. Eyes very large, subapproximate above and beneath; anterior tarsal joints 1-3 with a black comb along their inner edge, 4 small, narrow. Genital armature: lateral lobes long, broad; median lobe narrow, acuminate, somewhat hooked at the tip.

Hab. E. AFRICA, Mombasa and Zanzibar.

A male from Zanzibar, received by the Museum in 1868, is certainly referable to this species. A narrow, elongate, ochraceous insect, with the head (except in front), and a small patch at the tip of the elytra, black; the antennæ long, subfiliform; the body thickly pubescent, the head with numerous long dark bristly hairs, and the elytra sparsely, seriatly nigro-setose; the apical joint of the maxillary palpi long, subcultriform; the labrum transverse, subquadrate. The genital armature has not been dissected, but it is partly extruded in the single specimen before me.

5. *Idgia abyssinica*, sp. n.

♀. Elongate, rather narrow, shining, thickly pubescent, and also set with scattered, curled or erect, long black bristly hairs, those on the disc of the elytra seriatly arranged, the margins of the latter nigro-ciliate; fulvo-testaceous, the head (the labrum excepted), joints 5-11 of the antennæ, the elytra and abdomen at the tip, and the legs (the bases of the femora excepted), black. Head rather small, somewhat produced in front; labrum broad, transverse, large, angularly dilated; apical joint of maxillary palpi subcultriform; eyes large, well separated; antennæ long, rather slender, joints 5-10 slightly widened, subserrate, 7-10 decreasing in length, 11 much longer than 10, hollowed within. Prothorax as long as broad, wider than the head, uneven, sparsely, rugulose punctate. Elytra very long, rounded at the tip; densely, rugulose punctate, the seriatly-arranged setæ each preceded by a minute smooth granule. Legs rather stout, long.

Length (excl. head) 10, breadth 3 mm.

Hab. ABYSSINIA (*Mus. Brit.*).

One female, acquired in 1876. Not unlike *I. apicalis*, but broader, with a larger labrum, and stouter, outwardly infusate antennæ, the legs (the bases of the femora excepted) and apex of the terminal ventral segment black. The general system of coloration is like that of *I. assimilis*, Hope, and many other eastern members of the genus, most of which have a much smaller labrum. The elytra are broader and less parallel, the antennæ are stouter, the head is smaller, and the apical joint of the maxillary palpi is less elongate, than in *I. longipalpis*. The antennæ are not so slender as in the Indian *I. assimilis*, Hope, from which the unusually enlarged, angularly dilated labrum is sufficient to distinguish the present species.

6. *Idgia longipalpis*, sp. n.

♂. Elongate, narrow, shining, thickly pubescent, the head and prothorax also set with long, curled, projecting or erect, black bristly hairs, the elytra seriato-nigro-setose on the disc and strongly ciliate along their outer margin; black or piceous, the palpi and labrum, the basal four or more joints of the antennæ, the anterior femora at the base, the anterior tibiæ, the tarsi in part, and the elytra for fully two-thirds of their length, testaceous, the prothorax rufescent or testaceous along the basal, apical, and outer margins.

Antennæ long, rather slender, subfiliform. Eyes extremely large, almost contiguous. Labrum large, angularly dilated, transverse. Apical joint of maxillary palpi elongate, cultriform, that of the labial palpi securiform. Prothorax narrower than the head, very uneven, rugulosely punctate. Elytra elongate, rounded at the tip; densely, rugulosely punctate, the seriatly-arranged setæ each preceded by a minute smooth tubercle. Sixth ventral segment sulcate down the middle. Anterior tarsal joints 1-3 with a narrow black comb along their inner edge, 4 small. Genital armature (Pl. XI. fig. 6): lateral lobes long, broad; median lobe abruptly narrowed towards apex, the apical portion long and slender, sharply hooked at the tip beneath.

Length (excl. head) $8\frac{1}{2}$ -9, breadth 3-3 $\frac{1}{8}$ mm.

Hab. ABYSSINIA (*Mus. Brit.*).

Three males, received in 1876. Closely related to *I. apicalis*, Gerst., and separable therefrom by the large black apical patch on the elytra, the broadly infusate disc of the prothorax, the blackish under surface and legs, the more elongate apical joint of the maxillary palpi, and the different genital armature.

7. *Idgia cyanea*.

Idgia cyanea, Pic, L'Echange, xxii. p. 43 (1906).

♂. Tarsi formed very much as in *I. dimidiata*, joints 1-3 of anterior pair with a similar comb on their inner edge, 1 and 2 subequal in length, 4 small, shorter than in ♀; tibial spurs small, as in ♀. Genital armature (Pl. XI. fig. 7): lateral lobes narrower than in *I. dimidiata*; median lobe sinuate, and drawn out into a long, narrow point, which is abruptly curved downward and rather blunt at tip.

Hab. UGANDA, S.E. shore of Lake Kioga and between that place and Kakindu in W. Busoga, alt. 3400-3500 ft. (*S. A. Neave*); S. NIGERIA, Oyo Yoruba.

Thirteen examples from Uganda, including five males, are referred to this species, the type of which was from Oyo Yoruba. Very like *I. dimidiata*, var. *tripartita*, wholly black or bluish black, with the exception of the rufous tarsal claws and the uniformly nigro-cyaneous elytra, the antennæ a little less widened.

8. *Idgia fulvicollis*.

Idgia fulvicollis, Reiche in Ferret and Galinier's Voy. Abyssin., Ins. p. 286, t. 17. figs. 5, 5 a-e (1849). (♂ ♀.)

♂. Eyes larger, more convex, and more narrowly separated

than in ♀; anterior tarsal joints 1-3 with a conspicuous comb along their inner edge, 4 small; posterior tibiæ curved. Genital armature (Pl. XI. fig. 8): lateral lobes rather short; median lobe drawn out into a long, slender, curved point.

Hab. ABYSSINIA (*Mus. Brit.*); E. AFRICA, Alhi Plains and Nyems Ndogo (*Gregory*), Higo Samula (*R. J. Stordy*: 30. x. 1911).

There are five males and three females of this species in the Museum, including a ♀ from Abyssinia received in 1855. A hairy, elongate insect, black or piceous, with the prothorax and tarsal claws, and usually the scutellum also, testaceous, the elytra with a faint bluish tinge; the antennal joints 3-10 elongated and slightly widened, 11 curved, hollowed on its inner face, much longer than 10 in ♂. The faintly indicated elytral costæ are exaggerated in Reiche's figure. *I. fulvicollis* has the antennæ less widened than in *I. dimidiata*, both species occurring at the same locality in Abyssinia. *I. henonii*, Fairm., from Choa (1883), may be a form of the ♀ with an infuscate prothorax? The genital armature is very like that of *I. dimidiata* and *I. plectrophora*.

Arabian Species.

- Prothorax and elytra testaceous, the apical portion of latter broadly black; antennæ long and slender in ♂ and ♀; head rostrate No. 9.
 Prothorax testaceous, elytra nigro-cyaneous; antennæ long and broadly dilated in ♂, shorter and less widened in ♀; head rostrate No. 10.

9. *Idgia arabica*, sp. n.

? *Prionocerus hirtus*, Walk. List Coleopt. J. K. Lord, p. 14 (1871).

Very elongate, somewhat widened posteriorly, shining, the elytra rather dull; finely pubescent and sparsely nigro-setose; fulvous, the head (the labrum and epistoma excepted) and the antennæ from about the fourth joint black, the elytra with a large apical patch (occupying one-third or more of their length) nigro-cyaneous. Head long, narrow, strongly produced anteriorly, the labrum about as long as broad, hollowed down the middle; eyes very large, moderately convex, subcontiguous in ♂, narrowly separated in ♀; antennæ long in ♂, a little shorter in ♀, joints 5-10 elongate, feebly serrate, moderately widened, subequal in length, 11 concave within, slightly longer than 10. Prothorax oblong-subquadrate, wider than the head, uneven,

quite sparsely punctulate. Elytra very elongate, at the middle twice as wide as the prothorax, densely granulato-punctate. Legs very long.

♂. Posterior femora feebly clavate; anterior tarsal joints 1-3 with a narrow black comb along their inner edge; terminal dorsal segment entire. Genital armature (Pl. XI. figs. 9, 9 a): lateral lobes sinuate, curved inward and somewhat hooked at the tip, as seen from above (fig. 9 a), broad as seen in profile (fig. 9); median lobe gradually acuminate, the apex broadly, abruptly dilated, subsagittiform.

Length (excl. head) 11-14, breadth $3\frac{1}{5}$ - $4\frac{2}{5}$ mm. (♂ ♀.)

Hab. ARABIA, Yemen (*Millingen, in Mus. Brit.*).

The above description is taken from four males and three females. They agree with Walker's diagnosis of *P. hirtus*, except as regards their larger size, the unnotched eyes*, and the broad joints to the antennæ. His type, from Tajura, on the opposite African coast, appears to have been lost. The median lobe of the male is very peculiarly formed.

10. *Idgia laticornis*, sp. n.

Elongate, somewhat widened posteriorly, shining, the elytra duller; finely pubescent and sparsely nigro-setose; fulvous, the head (the labrum and epistoma excepted) and the antennal joints 5-11 black, the elytra nigro-cyaneous or black. Head long, narrow, strongly produced anteriorly, the labrum about as long as broad, hollowed down the middle; eyes very large, moderately convex, narrowly separated in ♂, more distant in ♀; antennæ (♂) elongate, joints 4-11 broad, stout, feebly serrate, tapering towards the apex, 4 not longer than 3, 5-10 subequal in length, longer than broad, 11 deeply excavate within, longer than 10, (♀) much shorter and more slender. Prothorax wider than the head, oblong-subquadrate, narrowed anteriorly, uneven, sparsely punctulate. Elytra very long, at the middle twice as wide as the prothorax, densely granulato-punctate.

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge; anterior tibiæ slightly curved towards the apex; posterior trochanters toothed behind. Genital armature (Pl. XI. figs. 10, 10 a): lateral lobes rather short, narrowed and slightly sinuate distally, as seen from above; median lobe stout, abruptly bent downward and broadly, angularly dilated towards apex, the apical portion straight, hooked above and beneath at tip.

* Almost certainly an error of observation.

Length (excl. head) $10\frac{1}{2}$ – $12\frac{1}{2}$, breadth $3\frac{1}{4}$ –4 mm. (σ ♀.)

Hab. ARABIA, Yemen (*Millingen*), Ktubu and El Kubar (*G. W. Bury*).

Three males and two females. Near *I. arabica*, but with the σ -antennæ dilated as in a Lycid, the elytra wholly nigro-cyanaceous or black. One of the females, that from El Kubar, somewhat discoloured, has the head almost entirely black, the legs partly infusate, and the elytra black. The narrow, elongate head, broad antennæ, shorter pubescence, differently coloured body, &c., separate *I. laticornis* from the Abyssinian *I. fulvicollis*, Reiche. The stout, abruptly bent median lobe, as seen from above, has the long apical portion broadly sagittiform.

Chinese Species.

Prothorax and elytra testaceous, the apices of the latter black.....	Nos. 11, 12.
Prothorax flavous, head and elytra metallic; tarsal claws simple; body narrow, elongate.....	No. 13.
Prothorax and front of head testaceous, elytra obscurely metallic; tarsal claws widened basally; body narrow, very elongate.....	No. 14.
Prothorax, base of head, and elytra uniformly greenish; tarsal claws widened basally; body very narrow and elongate.....	No. 15.

11. *Idgia deusta*.

Idgia deusta, Fairm. Ann. Soc. Ent. Fr. (5) viii. p. 118 (1878).

σ . Anterior tarsal joints 1–3 with a comb along their inner edge; posterior tibiæ (as in ♀) almost straight and with very small spurs. Genital armature (Pl. XI. fig. 11): lateral lobes long, broad, curved inward at the tip, as seen from above; median lobe long, rather narrow, feebly sinuate from near the base, terminating in a slender hooked point.

Hab. CHINA (*Fortune*, in *Mus. Brit.*), Foo-Chow (*C. B. Ricket*, *G. Lewis*), Suiling in W. China (*W. A. Maw*), Shanghai (*J. J. Walker*).

Numerous specimens from the above-mentioned localities are referred to *I. deusta*, Fairm., the type of which was found by Abbé David in Central China. Bourgeois (Ann. Soc. Ent. Belg. xxxvi. p. 238, 1892) sinks the Chinese insect as synonymous with the Indian *I. melanura*, Koll. & Redt., which also has the tip of the elytra and the whole of the head black, the legs and antennæ infusate, the eyes very large, &c.; the present species, however, has the upper surface less densely punctate and more shining (approaching

I. nitida in that respect), and the ♂-armature very different from that of *I. melanura*.

The length (excl. head) varies from $8\frac{1}{2}$ –10 mm. The eleventh antennal joint is deeply excavate and more than twice the length of the tenth.

12. *Idgia ungulata*, sp. n.

Elongate, narrow, shining, finely pubescent, and sparsely setose; testaceous, the head (except the labrum in part or wholly, and sometimes a spot at the base), and a small patch at the apex of the elytra, black, the antennæ, tibiæ, tarsi, and apices of the femora more or less infuscate. Head somewhat produced in front, the labrum transverse, concave eyes very large, almost contiguous in ♂; antennæ slender, distinctly widened outwards, joint 4 a little shorter than 3 or 5, 11 deeply excavate within, twice as long as 10. Prothorax very little wider than the head, slightly longer than broad, feebly sinuate at the sides posteriorly, sparsely punctate. Elytra moderately elongate, finely, somewhat densely punctate.

♂. Anterior tarsal joints 1–3 with a comb along their inner edge; posterior tibiæ distinctly arcuate towards the apex, the spurs strongly developed, curved, the upper one longer than the other. Genital armature (Pl. XI. fig. 12): lateral lobes long, broad; median lobe sinuate, gradually narrowed to the rather blunt tip.

Length (excl. head) 6 – $7\frac{1}{2}$, breadth 2 – $2\frac{3}{4}$ mm.

Hab. CHINA (*Mus. Brit.*), Hong Kong (*Mus. Brit.*, *F. W. Terry*, *J. J. Walker*), Amoy (*G. Lewis*).

A long series, males preponderating. Less elongate than *I. deusta* as here identified, the head not wholly black in front, the apical patch smaller; the male with differently formed posterior tibiæ, longer asymmetric spurs (suggestive of those of certain *Scirtes*), and dissimilar genital armature.

13. *Idgia flavicollis*.

Idgia flavicollis, Redt. Reise der Novara, ii. p. 111 (1868); Fairm. Ann. Soc. Ent. Fr. (6) ix. p. 45 (1889).

♂. Eyes distant, as in ♀; anterior tarsal joints 1–3 with a comb along their inner edge. Genital armature (Pl. XI. fig. 13): lateral lobes long; median lobe narrow, pointed at tip.

Hab. CHINA, Hong Kong.

There is a long series of this species in the Museum, including several examples captured by Commander Walker

in 1893. A slender insect, not unlike an *Asclera* (fam. Edemeridæ), green or bluish green, with the palpi, antennæ, and sometimes the tibiæ and apex of the abdomen also, testaceous or flavous; the antennæ very slender; the head small. Two males have been dissected. *I. flavicollis* appears to have been unknown to Pic.

14. *Idgia flavirostris*.

Idgia flavirostris, Pasc. Journ. Ent. i. p. 43 (April 1860); Fairm. Ann. Soc. Ent. Fr. (6) ix. p. 44 (1889).

♂. Eyes small, distant, as in ♀; anterior tarsal joints 1-3 with a comb along their inner edge. Genital armature (Pl. XI. fig. 14): lateral lobes long, narrowed outwards, their apices truncate and hooked beneath; median lobe gradually narrowed, curved upward at the tip.

Hab. CHINA (*Mus. Brit.*), Chusan Is. (*J. J. Walker*), Ta-maon Isl., Hong Kong (*Mus. Brit.*).

Of the eighteen examples of this species before me, including the type, one only, from the Chusan Is., is of the male sex. A close ally of *I. flavicollis*, with a longer prothorax and very elongate elytra, the anterior portion of the head, palpi, basal joints of the antennæ, prothorax, and femora testaceous. The head is small and comparatively short. The tarsal claws are distinctly widened to about the middle. An allied form from China has been described by Fairmaire under the name *I. moupinensis*.

15. *Idgia virescens*, sp. n.

♀. Very elongate, narrow, subopaque, finely cinereo-pubescent, and sparsely nigro-setose; obscure metallic green, the anterior half of the head, palpi, antennæ, underside of prothorax, abdomen, coxæ, femora, and tibiæ in part, testaceous. Head scabroso-punctate, small, slightly produced in front, excavate between the eyes, the labrum transverse; eyes distant; apical joint of maxillary palpi elongate; antennæ very slender, long, joints 3 and 4 equal in length, those following still more elongate. Prothorax longer than broad, wider than the head, somewhat dilated at the middle, opaque, densely, very finely scabroso-punctate. Elytra very elongate, much broader than the prothorax, rounded at the tip; densely, rugulosely punctate, each with five series of conspicuous granules on the disc, the margins crenulate. Legs very long and slender; tarsal claws widened to about the middle.

Length (excl. head) $8\frac{1}{4}$, breadth 2 mm.

Hab. W. CHINA, Chin-Fu-San (*M. A. Maw*).

One specimen, in poor condition, received by the Museum in 1908. Near *I. flavirostris*, Pasc., but smaller, narrower, and more slender, the prothorax opaque and coloured, like the elytra, the seriatly arranged granules on the latter conspicuous.

Indian and Malayan Species *.

- a. Antennal joints [♀] 8-10 serrate, different in shape from those preceding; head small; prothorax vittate; elytra broad, black No. 16.
- b. Antennal joints 8-10 similar in shape to those preceding.
 - a¹. Antennal joint 4 very short, about as long as 2, the antennæ themselves strongly serrate in ♂; prothorax testaceous; elytra metallic No. 17.
 - b¹. Antennal joint 4 nearly or quite as long as 3 or 5.
 - a². Antennæ strongly serrate in ♂; body brilliantly metallic No. 18.
 - b². Antennæ not strongly serrate in ♂, not differing greatly in the two sexes.
 - a³. Elytra metallic; the prothorax rufescent or testaceous, maculate in some of the species.
 - a⁴. Posterior femora not thickened in ♂ Nos. 19-21.
 - b⁴. Posterior femora more or less thickened in ♂. Nos. 22-24.
 - b³. Elytra infusate or black (paler in *I. gorhami*, Pic, var.), sometimes with a metallic lustre; the prothorax testaceous, maculate in *I. nilgirica* Nos. 25-30.
 - c³. Elytra infusate, with the sutural and outer margins in part or entirely flavescent; the prothorax testaceous, maculate in *I. marginata*. Nos. 31, 32.
 - d³. Elytra viridi-vittate on disc and the prothorax maculate, the former dilated at base No. 33.
 - e³. Elytra and prothorax testaceous or luteous, the former black at tip.
 - c⁴. Posterior femora thickened in ♂ Nos. 34-36.
 - d⁴. Posterior femora not thickened in ♂.
 - a⁵. Apical patch on elytra extending forward to about the middle Nos. 37, 38.
 - b⁵. Apical patch moderately large, rarely reaching so far forward Nos. 39-48.
 - c⁵. Apical patch small.
 - a⁶. Sixth ventral segment triangularly emarginate in ♂ Nos. 49-59.
 - b⁶. Sixth ventral segment trilobed in ♂ No. 60.

Species provisionally referred to *Idgia* (♂ wanting):
 small, slender, metallic, Dasytiform No. 61.

16. *Idgia triserrata*, sp. n.

♀. Moderately elongate, widened posteriorly, the head and prothorax shining, the elytra dull, finely pubescent and

* ♂ ♂ wanting of Nos. 16, 33, 37, 43, 48, 59.

sparsely setose; bluish black, the head nigro-æneous; the basal joints of the antennæ obscurely rufescent, the prothorax (an elongate black patch on the disc excepted) rufo-testaceous. Head small, narrow, somewhat produced anteriorly, the labrum concave, nearly as long as broad, rounded at the sides; eyes distant; antennæ short, slender at the base, widened outwards, joints 8-10 serrate, 10 sub-transverse, 11 concave within, barely as long as 9 and 10 united. Prothorax much wider than the head, about as long as broad, uneven, polished on the disc, sparsely punctate laterally. Elytra broad, long, widened to beyond the middle, rounded at the tip; densely, finely, rugulose punctate. Legs rather short.

Length (excl. head) 10, breadth 4 mm.

Hab. INDIA, Manipur (*Doherty*).

One specimen. This species resembles *Prionocerus cæruleipennis* and *P. bicolor* in shape, but it has the antennæ slender at the base and joints 8-10 abruptly serrate; the head is small and narrow; the prothorax is red, with a black, anteriorly narrowed median vitta; and the elytra are broad, dull, and bluish black in colour. *I. submetallica*, Pic (1911), from Kandy, which has the elytra red, except at the tip, seems to be an allied form.

17. *Idgia viridipennis*.

♀. *Idgia viridipennis*, Pic, L'Echange, xxii. p. 55 (1906).

Prionocerus viridipennis, Bourg. Ann. Soc. Ent. Belg. li. pp. 103, 104 (1907). (♂ ♀.)

Hab. S. INDIA, Wallardi in Travancore [type], Anamalai Hills, alt. 1100 metres (*H. L. Andrewes*).

This species is easily recognizable by the very short fourth joint to the antennæ, the bluish-green head, elytra, under surface, and legs, the testaceous prothorax, and the partly testaceous basal joints of the antennæ. The three females from the Anamalai Hills in the Andrewes collection have joints 5-10 of the antennæ cyaneous, considerably widened, and distinctly serrate, these joints, according to Bourgeois, being broadly serrato-dilatate in the ♂; his definition of the ♀ antenna as "subfiliform" is misleading. The sutural angle of the elytra in ♀ is dentiform, as described by Pic.

18. *Idgia belli*.

Idgia belli, Gorb. Ann. Soc. Ent. Belg. xxxix. p. 319 (1895)¹.

♂. *Prionocerus cærulecutus*, Fairm. Notes Leyden Mus. xviii. p. 94 (1896)².

♂. Eyes much larger, more convex, and more approximate, and the antennal joints 6-10 broader and more strongly serrate, than in ♀; anterior tarsal joints 1-3 with a comb along their inner edge, 4 small, narrow; terminal dorsal segment rounded at tip. Genital armature (Pl. XI. fig. 15): lateral lobes long, rounded at apex; median lobe narrow, sharply acuminate, curved at tip.

Hab. S. INDIA (*Mus. Brit.*), Kanara¹ (*T. R. Bell*), Malabar² (*type of Fairmaire*), Nilgiri Hills (*H. L. Andrewes*, *A. K. Weld Downing*, *Sir G. F. Hampson*), Travancore (*G. S. Imray*), Periya Ghat [Malabar], alt. 2500 ft. (*E. Bullard*).

An elongate, slender, brilliantly metallic green, blue, or æneous insect, with the ♂-antennæ dilated and strongly serrate, approaching that of the type of *Prionocerus*; the legs long and slender; the labrum trapezoidal, rather large, deeply foveate in the centre at the base; the apical joint of the maxillary palpi elongate-triangular; the terminal joint of the antennæ curved and deeply excavate. Mr. Andrewes's collection contains a long series of this species from the Nilgiri Hills, and there are numerous examples of it in the British Museum. The Kauara type of Gorham is ♀.

19. *Idgia viridescens*.

Idgia viridescens, Gorh. Ann. Soc. Ent. Belg. xxxix. p. 319 (1895).

Prionocerus metallescens, Fairm. Notes Leyden Mus. xviii. p. 94 (1896).

♂. Eyes larger and more approximate, and the antennal joints 5-10 a little more acute at their inner apical angle, than in ♀; anterior tarsal joints 1-3 with a comb along their inner edge, 4 small, narrow; terminal dorsal segment bisinuato-truncate at apex. Genital armature (Pl. XI. fig. 16): lateral lobes broad, narrower and curved inward at tip, as seen from above; median lobe stout, acuminate, and almost straight at apex.

Hab. N. INDIA (*Mus. Brit.*), Simla (*Hauser: type of Fairmaire*), Kasauli (*Col. H. J. W. Barrow; coll. Andrewes*), W. Almora (*H. G. Champion*), Gopaldhara, Rungbon Valley, Sikkim (*H. Stevens*), Mungphu, Sikkim (*ex coll. Atkinson*); CENTRAL INDIA (*Capt. Boys, in Mus. Oxon.*).

A large, elongate, rather broad, posteriorly widened, obscure æneous or nigro-cæruleous form, with the prothorax and the tip of the antennæ fulvous or testaceous; the labrum transversely subquadrate, small, concave; the eleventh antennal joint curved and deeply excavate; the apical joint of the maxillary palpi elongate. Numerous

specimens of this insect have recently been sent by my son from W. Almora, from elevations between 7000 and 9000 ft. Two males have been dissected. Gorham's description of *I. viridescens* was based upon two examples ($\sigma^?$) from "India." The yellow base of the last abdominal segment mentioned by him doubtless refers to the pallid membranous space visible between the ventral segments 5 and 6 in σ .

20. *Idgia andrewesi*.

Prionocerus (*Idgia*) *andrewesi*, Bourg. Ann. Soc. Ent. Belg. li. p. 104 (1907). (σ $\sigma^?$).

σ . Eyes extremely large, almost contiguous (narrowly separated in σ); anterior tarsal joints 1-3 with a comb along their inner edge, 4 narrow, small; posterior trochanters acuminate at tip (obtuse in σ). Genital armature (Pl. XI. fig. 17): median lobe rather broad, as seen from above, narrower than the lateral lobes, sinuate, acuminate at tip, the latter subtruncate; lateral lobes moderately broad, the concave apical portion, as seen from beneath, separated from the rest by an oblique fold.

Hab. S. INDIA (*Mus. Brit.*), Nilgiri Hills (*H. L. Andrewes*, *Sir G. F. Hampson*), Anamalai Hills (*H. L. Andrewes*).

An elongate, nigro-cyaneous insect, with a long, flavo-testaceous prothorax, the basal joints of the antennæ, and also the apical one, the palpi, and sometimes the scutellum in part, flavescent; the antennæ long and slender, with joint 11 sinuate, considerably elongated in σ ; the apical joint of the maxillary palpi long; the head somewhat produced in front; the labrum narrow, somewhat oval, about as long as broad in some specimens, shorter in others. There are two males and six females of this species in Mr. Andrewes's collection, and a pair in the British Museum. Bourgeois overlooked the tarsal and trochanter characters, which are conspicuous in the labelled type, σ . The length varies from 11-13 mm.

21. *Idgia chloroptera*.

Idgia chloroptera, Redt. Reise der Novara, ii. p. 111 (1868).

σ . Eyes large, subcontiguous (a little more distant in σ); anterior tarsal joints 1-3 with a comb along their inner edge. Genital armature (Pl. XI. fig. 18): lateral lobes long, broad; median lobe curved and acuminate at tip.

Hab. CEYLON [type] (*Thwaites*, in *Mus. Oxon.*: σ), Kapulahani (*Mus. Brit.*: σ), Maskeliya (*E. E. Green*: σ).

There is a pair of this species in the British Museum and a male in the Hope collection at Oxford. A very elongate, dull, greyish-green insect, with the anterior and basal margins of the prothorax, the extreme bases of the femora, the abdomen, and the under surface in great part, testaceous; the antennæ slender, filiform; the prothorax rugulose, the dark patch on the disc sometimes divided down the middle; the elytra unusually long and densely, rugulosely punctate; the legs slender in both sexes.

22. *Idgia cyanocephala*, sp. n.

Elongate, narrow, subparallel, moderately shining, finely cinereo-pubescent, and sparsely nigro-setose; cyaneous, the elytra and under surface greenish, the prothorax and basal joints of the palpi testaceous, the antennæ piceous, testaceous at the base and tip. Head narrow, moderately produced anteriorly, the labrum transverse; eyes somewhat distant in both sexes; antennæ slender, subfiliform, joints 3 and 4 about equal in length, 11 much longer than 10, concave within. Prothorax scarcely wider than the head, sinuate at the sides posteriorly, about as long as broad. Elytra elongate, subparallel, at the middle twice as wide as the prothorax, rounded at the tip, flattened on the disc; densely, rugulosely punctate, with four rows of rather prominent granules, the margins crenulate. Legs slender.

♂. Anterior tarsal joints 1-3 with a narrow comb along their inner edge; posterior femora slightly thickened. Genital armature (Pl. XI. fig. 19): lateral lobes moderately long, feebly sinuate, narrowed towards apex; median lobe stout, sinuate, pointed.

Length (excl. head) $7\frac{1}{2}$ - $8\frac{1}{2}$, breadth $2\frac{1}{4}$ mm. (♂ ♀.)

Hab. MALACCA, Perak (*Doherty*).

One male and two females. Smaller than the Indian *I. viridipennis*, Pic, the head narrower, the antennæ slender and with the fourth joint as long as the third, the eyes larger, the elytra flattened on the disc, the fourth row of granules forming a distinct ridge. Compared with *I. cæruleiventris*, which also occurs at Perak, the metallic-blue head, elytra, and legs and the slightly thickened posterior femora of the ♂ will serve to distinguish *I. cyanocephala*.

23. *Idgia rouyeri*.

Idgia rouyeri, Pic, L'Echange, xxii. p. 43 (1906).

Elongate, narrow (♂), broader (♀), shining, thickly

pubescent, and sparsely nigro-setose; testaceous, the head, the outer halves of the femora, the antennæ (except at the base and tip), and sometimes the tibiæ and tarsi also, infuscate or black, the elytra bluish, bluish green, or fusco-æneous, the prothorax in two examples with a small blackish spot on each side. Head rather small, the labrum transverse; eyes very large and subcontiguous in ♂, somewhat narrowly separated in ♀; antennæ slender, slightly thickened towards the apex, moderately long, joint 11 deeply excavate within, a little longer than 10. Prothorax longer than broad, sinuate at the sides posteriorly, uneven, sparsely punctulate. Elytra long, subparallel; densely, rugulose punctate, and with seriatly arranged granules extending down the disc, the margins crenulate.

♂. Intermediate and posterior tibiæ feebly curved; posterior femora thickened; anterior tarsal joints 1-3 with a comb along their inner edge, 4 small. Genital armature (Pl. XI. fig. 20): lateral lobes long; median lobe stout, sinuate, acuminate at tip.

Length (excl. head) 9-10, breadth $2\frac{1}{2}$ - $3\frac{1}{2}$ mm. (♂ ♀.)

Hab. JAVA [*Rouyer*: type] (*Mus. Brit.*, *Mus. Oxon.*), Depok (*G. E. Bryant*: 18. iv. 1909); SUMATRA, Palembang.

Four males and four females, two of the latter with a bimaculate prothorax, are referred to this species, the colour-characters only of which are briefly given by Pic in a synoptic table.

24. *Idgia femorata*, sp. n.

Elongate, rather broad, robust, shining, finely pubescent, and sparsely setose; testaceous, the head (the labrum excepted) black, the elytra nigro-cæruleous. Head somewhat produced in front, the labrum transverse, subquadrate; eyes extremely large and narrowly separated in ♂, more distant in ♀; antennæ long, shorter in ♀, joints 5-10 moderately widened, 3-7 elongate, 8-10 gradually decreasing in length, 11 much longer than 10, concave within. Prothorax about as long as broad, somewhat rounded at the sides. Elytra long, finely, densely, rugulose punctate. Terminal dorsal segment entire.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge; posterior femora incrassate. Genital armature (Pl. XI. fig. 21): lateral lobes long; median lobe stout, drawn out into a curved point.

Var.? The antennæ (except at base) and legs (the basal

portions of the femora excepted) infusate or black, the elytra less metallic.

Length (excl. head) $10\frac{1}{2}$ –12, breadth 3–4 mm. (σ φ .)

Hab. INDIA (*Walter Elliot*, in *Mus. Brit.*: type, σ), Belgaum (*H. E. Andrewes*: type φ), Mysore (*Mus. Oxon.*: var., σ), Poona (*coll. Andrewes*: var., φ).

Described from a similarly coloured pair, the σ without definite locality. The examples with partly infusate legs and antennæ, the σ with thickened posterior femora, seem to belong to the same species, the genital armature being similar in the two forms. *I. femorata* is closely related to *I. gorhami*, Pic, as here restricted, differing from it in the strongly incrassate posterior femora in σ , the simple terminal dorsal segment in both sexes, and the slightly dilated antennæ. The median and lateral lobes are much shorter than in the two males of *I. gorhami* dissected. The type, σ , of the present species was presented to the British Museum many years ago.

25. *Idgia gorhami*.

Idgia gorhami and var. *diversipennis*, Pic, Bull. Soc. Ent. Fr. 1911, p. 241 (exclud. var. with bimaculate prothorax)¹.

σ . Anterior tarsi, terminal dorsal segment, and genital armature (Pl. XI. fig. 22) as in *I. dimelæna*, Walk. (= *cardoni*, Bourg.), No. 44, infra.

Hab. INDIA (*Mus. Brit.*), Nilgiri Hills¹ (*Sir G. F. Hampson*, *H. L. Andrewes*, *A. K. Weld Downing*), Coonor (*W. Davison*), Belgaum¹ (*H. E. Andrewes*), Kanara (*T. R. Bell*); BURMA, Paungde (*Mus. Brit.*).

The dissection of two males from the Nilgiri Hills shows that *I. gorhami* is a form of *I. dimelæna*, Walk., with infusate, submetallic elytra, the variety *diversipennis* being intermediate. The two insects are common in the Nilgiri Hills, but as *I. gorhami* does not appear to extend to Ceylon it is here given specific rank. The anterior portion of the head, the antennæ, scutellum, legs, and under surface are testaceous, as in *I. dimelæna*, and the terminal dorsal abdominal segment is similarly cleft at the tip in the two sexes, the apex appearing bilobed.

26. *Idgia nilgirica*, sp. n.

Idgia oculata, Gorb. Ann. Soc. Ent. Belg. xxxix. p. 319 (1895) (nec Redt.).

Idgia gorhami, Pic, Bull. Soc. Ent. Fr. 1911, p. 241 (var. with bimaculate prothorax).

Elongate, narrow (σ), broader (ρ), subparallel, feebly shining, finely pubescent, and sparsely nigro-setose; testaceous, the head (the labrum excepted), and a large oblong patch on each side of the prothorax, black, the antennæ (except at the base and tip), elytra and legs (except the bases of the femora to a variable extent) fuscous or nigro-fuscous, the elytra sometimes with a faint bluish tinge. Head rather long, narrow, the labrum transverse, trapezoidal, concave; antennæ slender, filiform, joint 11 concave, a little longer than 10. Prothorax slightly longer than broad, sinuate at the sides posteriorly, densely, rugosely punctated. Elytra elongate, densely, rugulose punctured, and with rows of scattered granules on the disc.

σ . Anterior tarsal joints 1-3 with a narrow comb along their inner edge; terminal dorsal segment deeply, narrowly cleft in the middle at apex (the notch much deeper than in ρ). Genital armature (Pl. XI. fig. 23): lateral lobes curved, broad; median lobe drawn out into a long, slender, compressed piece, which (as seen from above) is feebly dilated and somewhat spoon-shaped at the tip*.

Length (excl. head) 8-11, breadth 2-3 mm. (σ ρ .)

Hab. INDIA, Nilgiri Hills (*H. L. Andrewes, Sir G. F. Hampson, A. K. Weld Downing*).

Two males and eight females. Narrower than *I. gorhami*, the prothorax rougher and nigro-bimaculate, the legs and antennæ partly infuscate. The σ has a similarly cleft (or bilobed) terminal dorsal segment, but the genital armature is very different. The allied *I. flavolimbata* and *I. marginata*, from the same region, have the sutural and outer margins of the elytra more or less testaceous, and the terminal dorsal segment simple. *I. maculicollis*, Pic (1906), from Java, has a similarly maculate prothorax.

27. *Idgia cæruleiventris*, sp. n.

Elongate, narrow, subparallel, shining, closely cinereo-pubescent, and sparsely nigro-setose; nigro-fuscous, the head black, under surface and femora bluish or violaceous, the palpi, basal joints of the antennæ, prothorax, and tarsal claws testaceous. Head slightly elongated anteriorly, the labrum transverse; eyes large, narrowly separated in σ , more distant in ρ ; antennæ long, slender, a little shorter in ρ , joint 11 concave within, considerably longer than 10. Prothorax about as long as broad, very little wider than the

* Not visible in profile figure.

head, sinuate at the sides posteriorly. Elytra long, densely, finely, rugulose punctate with rows of conspicuous raised granules on the disc, the apices rounded. Legs slender in both sexes. Terminal ventral segment conical.

♂. Anterior tarsal joints 1-3 with a narrow comb along their inner edge. Genital armature (Pl. XI. fig. 24): lateral lobes abruptly narrowed and curved downward towards the apex, the slender apical portion hooked at the tip above; median lobe stout, sinuate distally, simply acuminate at apex.

Length (excl. head) 6-8, breadth 2-2½ mm. (♂ ♀.)

Hab. MALACCA, Penang (*Mus. Brit., H. N. Ridley*), Perak (*Doherty*).

Thirteen specimens, including males from each locality, the two from Penang [types] dissected exhibiting peculiarly modified lateral lobes in ♂. This is one of four extremely closely allied small Malayan or Indian forms, with a testaceous prothorax and the rest of the body and legs infuscate.

28. *Idgia cavilabris*, sp. n.

♂. Extremely like *I. cæruleiventris* and similarly coloured above, but differing as follows: the head broader, the labrum concave, the eyes somewhat distant (as in ♀ *cæruleiventris*), large, and convex; the prothorax longer and narrower, not so wide as the head; the elytra with the seriatly arranged granules inconspicuous; the ventral segments not metallic. Genital armature (Pl. XII. fig. 25): lateral lobes elongate, stout; median lobe drawn out into a very long slender point, which is sharply sagittate at tip.

Length (excl. head) 7, breadth 2 mm.

Hab. S. INDIA, Nilgiri Hills, alt. 3000 ft. (*H. L. Andrewes*), Kanara (*T. R. D. Bell*).

Two males—one with the scutellum testaceous, from the Nilgiri Hills, taken as the type, the other (injured by pinning) dissected and exhibiting a very peculiarly formed median lobe.

29. *Idgia uncigera*, sp. n.

Extremely like *I. cæruleiventris*, but differing as follows: black or pitchy black (the under surface included), the antennæ (except several of the intermediate joints in ♀), palpi, and prothorax testaceous; the eyes larger, subcontiguous in ♂; the antennæ considerably widened from joint 6 onward in ♂, shorter and more slender in ♀; the

elytra in ♀ furnished with a long, slender, curved hook, or a shorter dentiform process, at the sutural angle (Pl. XII. fig. 50).

Length (excl. head) 7-8, breadth $2\frac{2}{5}$ - $2\frac{1}{2}$ mm.

Hab. BORNEO, Kuching in Sarawak (*J. E. A. Lewis*: ♂ ♀), Quop in W. Sarawak (*G. S. Bryant*: iii., iv. 1914: ♀), Kina Balu (*Mus. Brit.*: ♀), Sanga Sanga, Moorjawa (*H. D. Jensen*: ♀).

Two males and five females. The ♀ found by Mr. Jensen in E. Borneo has a shorter and straighter tooth at the sutural angle than in the other specimens of that sex before me, *I. viridipennis*, Pic, ♀, having the elytra somewhat similarly armed. The Kuching males were not detected at the Museum till after the Plates accompanying this paper had been drawn, and the genital armature therefore has not been dissected for figuring; the apices of the elytra of ♀, however, are shown on the second Plate (Pl. XII. fig. 50).

30. *Idgia javana*, sp. n.

♂. Very like *I. cæruleiventris* and *I. uncigera*; nigro-fuscous, the palpi [antennæ broken] and prothorax testaceous, the legs reddish brown, the head grooved between the eyes, the latter narrowly separated, the elytra less elongate, the terminal ventral segment convex, conical, narrow, polished. Genital armature (Pl. XII. fig. 26): lateral lobes broad, spoon-shaped at tip as seen from beneath, narrowed distally as seen in profile; median lobe drawn out into a long, rather narrow, upwardly curved point.

Length (excl. head) $6\frac{2}{3}$, breadth 2 mm.

Hab. JAVA (*Mus. Brit.*).

One male, with genital armature so different from that of *I. cæruleiventris* that a name is required for the Javan insect, which may be referable to *I. sumatrensis* or its var. *I. kannegieteri**, Pic, from Sumatra, Java, and Borneo. The only tangible characters given for *I. sumatrensis* are the small size (length 9 mm.) and the very narrow, infuscate, non-metallic elytra, the type having a maculate prothorax. It is highly probable that more than one species was included by the author under the latter name.

31. *Idgia marginata*, sp. n.

Elongate, narrow, and subparallel (♂), broader (♀), moderately shining, finely cinereo-pubescent, and sparsely nigro-

* 'L'Echange,' xxii. p. 43 (1906); op. cit. xxvi. p. 75 (1910).

setose; testaceous, the head (the labrum and anterior margin of epistoma excepted) black; the elytra nigro-fuscous or fusco-violaceous, with the sutural and outer margins very narrowly testaceous at the base or to near the apex, the apices sometimes with an indeterminate black patch; the antennæ in one specimen fusco-annulate. Head slightly produced anteriorly, the labrum transverse; eyes very large and subcontiguous in ♂, narrowly separated in ♀; antennæ slender, joint 11 a little longer than 10. Prothorax about as wide as the head in ♂, longer than broad, wider in ♀, strongly sinuate at the sides posteriorly, closely, rugulose punctate. Elytra very long, quite narrow in ♂; densely, rugulose punctate, with rows of somewhat conspicuous granules on the disc. Terminal dorsal segment of the abdomen simple.

Var. The elytra testaceous with an indeterminate black patch at the shoulders and apex. (♀.)

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge. Genital armature (Pl. XII. fig. 27): lateral lobes short, broad, slightly curved, as seen from above; median lobe curved, compressed from about the middle, and drawn out into a blunt, downwardly directed point.

Length (excl. head) 8-11, breadth 2-3½ mm. (♂ ♀.)

Hab. INDIA, Nilgiri Hills (*H. L. Andrewes*).

Two males and ten females, including two of the variety which corresponds with the var. *diversipennis* of *I. gorhami*, Pic. More shining than *I. flavolimbata* from the Anamalai Hills, the antennæ, legs, and under surface testaceous, the ♂-armature very different. The males are much narrower than specimens of the same sex of *I. gorhami*, and are separable therefrom by the simple terminal dorsal segment of the abdomen, the pale sutural and outer margins of the elytra, and the ♂-armature.

32. *Idgia flavolimbata*, sp. n.

♂. Elongate, narrow, subparallel, depressed, shining, the elytra dull; finely pubescent and sparsely setose; fuscous, the head (the labrum included) black, the palpi, base and tip of the antennæ, prothorax (a broad space on the disc excepted), scutellum, mesosternum, coxæ, and bases of femora, testaceous; the elytra with a sharply defined black patch at the apex, the sutural and outer margins to near the tip, the extreme base, and an indeterminate undulate fascia preceding the apical spot, testaceous. Head moderately long, the labrum transverse, concave; eyes very large, subcontiguous;

antennæ long, slender, joint 11 about as long as 10, concave. Prothorax slightly longer than broad, not wider than the head, sinuate at the sides posteriorly, rugulose. Elytra very long, narrow, subparallel, densely, rugulose punctate. Anterior tarsal joints 1-3 with a narrow comb along their inner edge. Terminal dorsal segment rounded at apex. Genital armature (Pl. XII. fig. 28): lateral lobes long, narrow, almost straight, angularly dilated on their lower edge basally, as seen in profile; median lobe stout, feebly curved, gradually acuminate to the tip.

♀. Antennæ darker at base; eyes less approximate; prothorax with two large, oblong, black patches on the disc, densely rugulose; scutellum infuscate; elytra uniformly nigro-fuscous (the pallid sutural and outer margins excepted) to the tip.

Length (excl. head) $8\frac{1}{2}$ - $9\frac{3}{4}$, breadth $2\frac{1}{2}$ -3 mm.

Hab. S. INDIA, Anamalai Hills (*H. L. Andrewes*).

One male [type] and two females, assumed to be the sexes of the same species. A close ally of *I. nilgirica* with the sutural and outer margins of the elytra testaceous to near the tip, the genital armature very different. The ♂ has the apices of the elytra peculiarly marked, the black apical spot being bordered in front by a pallid undulate line. *I. circumdata*, Pic (1909), from "Indes ou Java," and *I. suturalis*, Kirsch (1875), from Malacca, must be allied forms, the latter having the prothorax wholly testaceous.

33. *Idgia viridivittata*, sp. n.

♀. Very elongate, narrow, depressed, subopaque (the head excepted) above, shining beneath, finely cinereo-pubescent, the head with several long bristly hairs; the epistoma, palpi, antennæ, margins, apex, and base of prothorax, sutural region (broadly) and outer margin (narrowly) of elytra, and bases of femora, testaceous, the labrum black, the head between and behind the eyes, a broad space across the disc of the prothorax, and the legs in great part, nigro-cæruleous, the scutellum, a broad vitta extending down the outer part of the disc of the elytra to near the apex, and the under surface (the testaceous ventral sutures excepted) green or bluish green. Head small, produced in front, the epistoma transverse, convex, extending forwards, limited behind by a deep groove; labrum transverse, subtrapezoidal; antennæ long, slender, filiform; eyes large, rather widely separated. Prothorax as long as broad, wider than the head, narrowed anteriorly, transversely depressed towards the base,

scabroso-punctate. Elytra extremely elongate, depressed along the suture, twice as wide as the prothorax at the base, gradually narrowed from the somewhat swollen humeri to the tip, the apices produced, dehiscent, and rather sharp; densely, very finely, rugulosely punctate, the seriatelately-arranged setigerous impressions clearly traceable. Legs long and slender.

Length (excl. head) 13–13½, breadth 3½–3¾ mm.

Hab. ASSAM, Nagas (*Doherty*).

Described from two females, both abraded and in rather decayed condition. The extremely elongate, subacuminate, basally widened, viridi-vittate elytra, narrow head and prothorax, filiform, testaceous antennæ, &c., readily distinguish this species, which has the general facies of a large *Edemerid*. It may have to be removed from *Idgia* when the male is found.

34. *Idgia maculiventris*, sp. n.

Elongate, robust, the prothorax and elytra opaque, the rest of the surface shining, finely pubescent and sparsely nigro-setose; luteous, the head (the sides of the labrum excepted), a rather large patch at the tip of the elytra, and the apex of the abdomen, black or bluish black. Head small, the labrum transverse, trapezoidal, concave; eyes very large and almost contiguous in ♂, narrowly separated in ♀; antennæ slender, comparatively short, filiform, joint 11 a little longer than 10. Prothorax slightly wider than the head, about as long as broad, rugulose. Elytra very long, twice as broad as the prothorax, subparallel, narrow at the tip; densely, rugulosely punctate, the erect seriatelately-arranged setæ very conspicuous.

♂. Posterior femora incrassate; posterior tibiæ curved, compressed and slightly widened at the apex; anterior tarsal joints 1–3 with a black comb along their inner edge; terminal dorsal segment rounded at tip. Genital armature (Pl. XII. fig. 29): lateral lobes rather narrow, long, widened in their basal two-thirds beneath, the distal edge of the dilated portion flavo-ciliate; median lobe very long, sinuate, drawn out into a somewhat hooked, upwardly curved, blunt point.

Length (excl. head) 10½–11, breadth 3–3½ mm. (♂ ♀.)

Hab. S. INDIA, Nilgiri Hills (*H. L. Andrewes*).

One male and three females. Separable from large examples of *I. dimelæna* by the relatively broader elytra and the black tip to the abdomen, the male with incrassate posterior femora and curved posterior tibiæ, the genital armature also different.

35. *Idgia flavilabris*, sp. n.

Elongate, narrow, slightly widened posteriorly in ♀, shining, finely pubescent, and sparsely setose; luteous, the head (the labrum excepted) and a rather small apical spot on the elytra black. Head small, the labrum transverse, flattened; eyes extremely large, contiguous in ♂, very narrowly separated in ♀; antennæ long, slender, filiform, joint 11 concave within, twice as long as 10. Prothorax longer than broad, about as wide as the head, sinuate at the sides posteriorly. Elytra elongate, at the middle twice as wide as the prothorax; densely, finely punctate, the setæ on the disc and margins long and conspicuous.

♂. Sixth ventral segment triangularly emarginate; posterior femora moderately incrassate; posterior tibiæ hollowed at the apex within, the spurs short; anterior tarsal joints 1-3 with a black comb along their inner edge; terminal dorsal segment rounded at tip. Genital armature (Pl. XII. fig. 30, : lateral lobes narrow, curved downward and more slender at the apex; median lobe drawn out into a blunt curved point at the tip.

Length (excl. head) $8\frac{1}{4}$ -9, breadth $2\frac{1}{2}$ -3 mm. (♂ ♀.)

Hub. MALACCA, Perak (*Doherty* : ♂ ♀), Penang (*G. E. Bryant* : 30. x. 1913 : ♀).

One male and three females. Near *I. maculiventris*, which also has the posterior femora incrassate in ♂; but smaller, narrower, and more shining, the apical spot on the elytra not so large, the ventral segments wholly luteous, the ♂ with peculiarly formed posterior tibiæ and dissimilar genital armature. *I. bourgeoisi*, Pic (1906), from Java, length 12-13 mm., is probably another allied form; it is described as having slightly dilated posterior femora in ♂, the elytra narrow and very elongate, the posterior part only of the head black, &c.

36. *Idgia geniculata*, sp. n.

♂. Elongate, narrow, subparallel, shining, finely pubescent, and sparsely setose; testaceous, the head (the epistoma and labrum excepted), a streak at the apices of the femora, and a rounded spot at the apex of the elytra, black. Head rather small, the labrum transverse, flattened; eyes large, somewhat narrowly separated; antennæ long, slender, filiform, joint 11 concave and longer than 10. Prothorax longer than broad, very little wider than the head, sinuate at the sides posteriorly. Elytra long, at the middle nearly twice as wide as the head;

densely, finely punctate, with rows of small scattered granules on the disc. Posterior femora moderately incrassate; posterior tibiæ simply arcuate, of equal width to the apex; anterior tarsal joints 1-3 with a black comb along their inner edge; terminal dorsal segment broadly subtruncate at tip. Genital armature (Pl. XII. fig. 31): lateral lobes moderately long, curved inwards at the tip as seen from above; median lobe drawn out into an almost straight, blunt point.

Length (excl. head) 8, breadth $2\frac{1}{4}$ mm.

Hab. CEYLON, Hapulahani, Haldummulle (*Mus. Brit.*).

Described from a single male, the only other specimens before me from the same locality, ♀ ♀, being certainly referable to the closely allied *I. dimelena*, Walk., the ♂ of which has slender posterior femora, almost straight posterior tibiæ, and a different genital armature.

37. *Idgia dichroa*, sp. n.

♀. Elongate, shining, finely pubescent, and sparsely setose; luteous, the head (labrum included) black, the apical half of the elytra nigro-cæruleous. Head slightly produced in front, narrow, the labrum transverse, unimpressed; eyes very large, subcontiguous; antennæ long, slender, filiform, joint 11 elongate, feebly sinuate within, about $2\frac{1}{2}$ times the length of 10. Prothorax a little wider than the head, oblong-subquadrate, slightly sinuate at the sides posteriorly; sparsely, very finely punctate. Elytra long, about twice as wide as the prothorax, densely, finely punctate, the seriatly-arranged granules on the disc somewhat conspicuous on the apical half.

Length (excl. head) 10, breadth $3\frac{1}{4}$ mm.

Hab. BORNEO, Sarawak (*A. R. Wallace, in Mus. Oxon.*).

One female, in good condition. This species agrees with the description of *I. longissima*, Pic, from Sumatra, in having an unusually elongate eleventh antennal joint, differing from it in the entirely pale limbs, and in the shorter, relatively broader elytra, with much more extended bluish-black apical patch. *I. semitecta*, from Ceylon, is somewhat similarly coloured.

38. *Idgia semitecta*, sp. n.

♂. Elongate, narrow, moderately shining, finely pubescent (the setæ abraded); testaceous, the head (the labrum excepted) and nearly the apical half of the elytra black, the antennal joints 5-11 nigro-piceous. Head rather long, the

labrum transverse, flattened; eyes very large, narrowly separated; antennæ unusually elongate, slender, widening outwards, joint 11 nearly twice as long as 10, concave. Prothorax slightly wider than the head, longer than broad, sinuate at the sides posteriorly, rugulose punctate. Elytra very long, a little widened posteriorly; densely, rugulose punctate, with an indication of raised lines on the disc. Anterior tarsal joints 1-3 with a black comb along their inner edge. Terminal dorsal segment broadly subtruncate at tip. Genital armature (Pl. XII. fig. 32): lateral lobes moderately long; median lobe sinuate, drawn out into a downwardly-curved point at the tip.

Length (excl. head) 8, breadth $2\frac{1}{2}$ mm.

Hab. CEYLON (*Mus. Brit.*).

One male, received at the Museum in 1875. A very narrow, elongate insect, with the antennæ unusually lengthened and infuscate from near the base to the tip, the black apical patch on the elytra occupying nearly the apical half. A somewhat similar form was found by Wallace at Sarawak. *I. semitecta* might easily be mistaken for a Telephorid of the genus *Rhagonycha*. It is allied to *I. dimelæna* and other somewhat similarly coloured species with simple posterior femora in ♂. *Prionocerus* (*Deromma*) *redtenbacheri*, Kirsch (1875), from Malacca, which is said to have a broader apical black patch than *I. melanura*, seems to be an allied form.

39. *Idgia melanocephala*.

Cantharis melanocephala, Fabr. Sp. Ins. i. p. 260 (1781).

Idgia ceylonica, Pic, L'Echange, xxvi. p. 76 (1910).

“*C. testacea*, capite elytrorum apicibus tibiisque nigris. Habitat in Coromandel. Mus. Dom. Banks. Magna. Caput cum antennis atrum immaculatum. Thorax marginatus, testaceus, immaculatus. Elytra lævia, testacea, apice nigra. Abdomen testaceum. Pedes nigri femoribus testaceis.” [*Fabricius*.]

♂. Anterior tarsal joints 1-3 with a narrow comb along their inner edge. Genital armature (Pl. XII. fig. 33): lateral lobes moderately long, broad, feebly sinuate; median lobe with the apical portion very long, narrow, compressed, abruptly curved downward at the tip, and armed with a sharp tooth before the apex above.

Hab. S. INDIA, Coromandel (*coll. Banks*), Bangalore (*Mus. Brit.*); CEYLON (*F. B. Fletcher*), Hapulahani (*Mus. Brit.*), Wadduwa (*Pic*).

There are five specimens of this species in the Museum, in addition to the Fabrician type. It is not unlike the E. African *I. dimidiata*, Gerst., but more sparsely pilose, the head, palpi, antennæ, legs (the bases of the femora excepted), and nearly the apical third of the elytra, black, the rest of the body fulvous; the antennæ, ♂ ♀, moderately long, feebly serrate, the eleventh joint curved, concave within, as long as 9 and 10 united; the labrum large, trapezoidal; the eyes large, somewhat narrowly separated in the two sexes. The genital armature figured is taken from the Hapulahani ♂.

40. *Idgia assimilis*.

Telephorus assimilis, Hope, Zool. Misc. 1831, p. 26.

Diprosopus melanurus, Muls., Mém. Acad. Lyon, i. p. 210 (1851).

Idgia melanura, Bourg. Ann. Soc. Ent. Belg. xxxvi. p. 237 (1892);
Gorh. op. cit. xxxix. p. 319 (1895) (nec Kollar and Redt.).

"Luteus, antennis flavis elytrorumque apicibus nigris. *T. melanuro*, Fabr., proximus. Long. lin. 5, lat. $1\frac{1}{4}$." [Hope.]

Elongate, narrow, moderately shining, finely pubescent, and sparsely nigro-setose; testaceous, the head (the labrum and anterior portion of the epistoma excepted), a patch at the apex of the elytra, the outer halves of the femora, and usually the tibiæ and tarsi in great part, piceous or black, the antennæ (joint 11 excepted) more or less infusate towards the apex. Head moderately large, not much produced in front, the labrum transverse, trapezoidal, concave; antennæ in ♂ long and slender, shorter in ♀; eyes large and almost contiguous in ♂, well separated in ♀; apical joint of maxillary palpi elongate. Prothorax slightly longer than broad, narrow, sinuate at the sides posteriorly. Elytra long, subparallel, densely, rugulose punctate.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge; terminal dorsal segment entire. Genital armature (Pl. XII. fig. 34): lateral lobes moderately long; median lobe stout, abruptly acuminate and slightly curved at tip.

Length (excl. head) 9-10, breadth $2\frac{3}{4}$ -3 mm. (♂ ♀.)

Hab. INDIA, Nepal (*Mus. Brit.*, *Mus. Oxon.*: ♂ ♀), W. Almora (*H. G. Champion*: ♂).

Ten specimens seen from Northern India, including the types from the Hardwicke collection in the British Museum. Various others from Belgaum and Madura (*Andrewes coll.*) and Bhotan (*Mus. Oxon.*), and Paungde in Burma (*Mus. Brit.*), are a little less elongate; but the genital armature of a ♂ from Belgaum being very similar (except that the

median lobe is less abruptly acuminate) to that of the Nepal and Almora insects, the southern examples are referred to the same species. A large, broad ♀ from the Anamalai Hills, and a small ♀ from the Nilgiris with the eyes more distant than usual, both in the Andrewes collection, may also belong here? Bourgeois's *I. melanura* was from Kunbir Nowatoli, that of Gorham from Belgaum and Madura. The type of *Diprosopus melanurus*, Muls., which has a testaceous labrum, was said to have been found at Nimes, France; but there must have been some mistake as to this locality (see Jacquelin Duval, Gen. Coleopt. Europ. iii. p. 189).

41. *Idgia melanura*.

Deromma melanura, Kollar and Redt. in Hügel's Kaschmir, iv. 2, p. 512, t. 25. fig. 6 (1844).

Extremely like *I. assimilis*, Hope, but with the head almost entirely, the antennæ (except at the tip), and legs (the bases of the femora excepted), black. Genital armature (Pl. XII. fig. 35): median lobe gradually narrowed into a long, blunt point.

Hab. N. INDIA, Cashmere [type], Kasauli (*H. J. W. Barrow*), Kangra and Palampur, Punjab (*G. E. Dudgeon*), Chitral (*R. Hill*), W. Almora (*H. G. Champion*: ♀), Gopaldhara in Sikkim (*H. Stevens*: ♂ ♀), N.W. Provinces (*coll. Andrewes*).

The numerous specimens from the above-mentioned localities in Northern India differ from the types of *I. assimilis*, Hope, in having the anterior portion of the head, as well as the basal portion of the antennæ, infuscate or black, and the median lobe of the ♂ differently shaped. Bourgeois and Gorham included several species under the name *I. melanura*, as shown by the differences in the ♂-armature of the examples dissected, including a specimen from Sikkim of the present insect. The apical black patch is much smaller than in *I. melanocephala*, F., and the antennæ are more slender. The very elongate elytra are indicated in the figure in Hügel's work.

42. *Idgia longissima*.

♂. *Idgia longissima*, Pic, Bull. Soc. Ent. Fr. 1909, p. 245; op. cit. 1910, p. 346.

♂. Antennæ long, slender, with joint 11 unusually elongate, about as long as 8-10 united (in ♀ shorter, and with joint 11 as long as 9 and 10 together); eyes very large,

contiguous (narrowly separated in ♀); anterior tarsal joints 1-3 with a comb along their inner edge. Genital armature: lateral lobes narrowed and sinuously curved towards the apex; median lobe broad, gradually narrowed, slightly hooked at the tip beneath.

Hab. SUMATRA, Padang [type], Sungei Kumbang, Siolak Daras, and Barong Bharu in Korinchi, alt. 3100-4500 ft. (*Robinson-Kloss Expedition*: iv. 1914).

Eleven specimens (5 ♂♂, 6 ♀♀) obtained by the above-mentioned Sumatran expedition are perhaps referable to *I. longissima*, Pic, type from Padang. Three only of them (♀♀), with a relatively shorter apical joint to the antennæ, have the legs wholly testaceous as described by the author, the others (♂♀) having these limbs in part or almost entirely, as well as the head in front and the antennæ (except at the tip), infuscate or black. The greatly elongated eleventh antennal joint is one of the characters given to separate *I. longissima* from similarly coloured forms (testaceous, with black head and violaceous apex to elytra) inhabiting the same regions. In the series before me the apical patch varies in development, from about one-eighth to nearly one-half the elytral length. To judge from Pic's table (1910) of the testaceous Javan and Sumatran representatives of the genus, *I. longipennis* and *I. longissima* may be based upon the two sexes of one variable insect. Unfortunately, the ♀ only of the form with pale legs and antennæ, with shorter apical antennal joint, is at present available for examination.

43. *Idgia cyanura*, sp. n.

♀. Elongate, widened posteriorly, shining, the elytra dull; finely pubescent and sparsely nigro-setose; testaceous, the head, antennæ (except the basal joints and the tip of 11), legs (the bases of the femora and the claws excepted), and a space down the middle of the ventral segments black, the elytra with a large nigro-cyaneous patch at the apex. Head small, the labrum strongly transverse, hellowed in the middle in front, appearing subarcuate; eyes large, well separated; antennæ slender, rather short, slightly widened outwards, joints 7-10 decreasing in length, 10 subserrate, 11 twice as long as 10, deeply excavate within. Prothorax wider than the head, not longer than broad, feebly sinuate at the sides. Elytra long, rather broad, widened posteriorly; densely, rugulose punctate, without granules on the disc.

Length (excl. head) $8\frac{1}{2}$, breadth 3 mm.

Hab. CEYLON, Kandy (*G. E. Bryant*: vi. 1908).

Very like *I. dimelæna*, Walk., but with the antennæ and legs in great part, and the labrum, infuscate or black, the apical patch on the elytra as large as in *I. melanocephala*, the head small, the labrum short and subarcuate, the penultimate antennal joint subserrate. *I. cyanura* cannot be satisfactorily included under *I. assimilis* or *I. melanura*, and as these latter are not known from Ceylon, a name is required for it, even in the absence of the male. *I. submetallica*, Pic (1911), also from Kandy, is similarly coloured above, but it has the under surface metallic.

44. *Idgia dimelæna*.

Thaccona dimelæna, Walk. Ann. & Mag. Nat. Hist. (3) iii. p. 260 (1859) [sub (Edemeridæ)]¹.

Idgia cardoni, Bourg. Compt. rend. Soc. Ent. Belg. xxxv. p. cxli (1891) (♂ ♀)², and Ann. Soc. Ent. Belg. xxxvi. p. 237 (1892)³; Gorb. op. cit. xxxix. p. 319 (1895)⁴.

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge; terminal dorsal segment narrowly, deeply excised in the middle (the notch much deeper than in ♀), appearing bilobed at tip; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 36): lateral lobes very long; median lobe very elongate, almost straight from near the base, the apex abruptly drawn out into a long slender curved point.

Hab. S. INDIA (*W. Davison*), Bombay, Malabar (*Mus. Brit.*), Kunbir Nowatoli², Mandar^{3 4} (*sec. Bourgeois*), Belgaum⁴, Madura (*H. E. Andrewes*), Anamalai Hills (*H. L. Andrewes*), Nilgiri Hills (*H. L. Andrewes*, *Sir G. F. Hampson*); CEYLON¹ (*Thwaites*, *G. Lewis*). Colombo (*H. P. Green*), Madulsima (*F. B. Fletcher*), Hapulahani (*Mus. Brit.*), Kandy (*G. E. Bryant*).

A common insect in Ceylon and Southern India, females greatly preponderating in the long series before me. One of Walker's types from Ceylon and a Nilgiri example have been dissected, and these show a precisely similar genital armature in ♂. The wholly testaceous labrum, antennæ, and legs, the slender antennæ, and the simple posterior femora in ♂, are its chief characters, but there are several very similar forms in the same regions. The apical black patch varies in size, but it is never very small. The length (excl. head) ranges from 9-10½ mm. The eyes are large and subcontiguous in ♂, the head is rather small, and not much elongated anteriorly, and the antennæ are slender.

The three females seen from Mandar (*P. Cardon*), all of large size, have stouter antennæ, and they may belong to a different species? *I. gorhami*, Pic, is a colour-variety of *I. dimelæna*, see ante, p. 347, though the former is here given specific rank.

45. *Idgia flavibuccis*.

Idgia flavibuccis, Bourg. Ann. Soc. Ent. Belg. xxxvi. p. 237 (1892)
(♂ ♀).

♂. Eyes extremely large, almost contiguous (narrowly separated in ♀); antennæ moderately elongate, a little longer than in ♀, distinctly thickened outwards, joints 7-10 gradually decreasing in length, 11 concave within, curved, nearly as long as 9 and 10 united; anterior tarsal joints 1-3 with a black comb along their inner edge. Genital armature (Pl. XII. fig. 37): lateral lobes sinuous within and curved inward at the tip, as seen from above; median lobe almost straight, drawn out into a curved point at the apex.

Hub. INDIA, Mandar in Western Bengal (*Cardon*: type), Bhotan (*Dr. Pemberton*, in *Mus. Brit.*: ♂ ♀).

This is a form of the variable *I. dimelæna*, Walk. (= *cardoni*, Bourg.), with the head wholly testaceous, a Λ -shaped black mark between the eyes excepted, the antennæ shorter and not so slender, and the terminal dorsal segment of the abdomen entire. The median lobe is very similar in the two insects.

46. *Idgia luteipes*, sp. n.

♂. Elongate, narrow, feebly shining, finely pubescent, and sparsely nigro-setose; testaceous, the head (the labrum and anterior portion of the epistoma excepted), and a rather large apical patch on the elytra, black. Head slightly produced anteriorly, the labrum transverse, trapezoidal, excavate; eyes very large, almost contiguous; antennæ long, slender, filiform, joints 3-10 subequal in length, 11 concave, a little longer than 10. Prothorax longer than broad, scarcely wider than the head, strongly sinuate at the sides posteriorly, rugulose punctate. Elytra long, subparallel, densely, rugulose punctate, without seriatly-arranged granules on the disc. Anterior tarsal joints 1-3 with a narrow black comb along their inner edge; terminal dorsal segment deeply emarginate. Genital armature (Pl. XII. fig. 38): lateral lobes stout, long; median lobe drawn out into a long, slender, sinuate point, which is armed with a sharp, backwardly-directed tooth at the tip above.

Length (excl. head) $7\frac{1}{2}$, breadth $2\frac{1}{2}$ mm.

Hab. S. INDIA, Nilgiri Hills (*A. K. Weld Downing*), Anamalai Hills (*H. L. Andrewes* : type).

Three males, one from each locality dissected, showing a precisely similar genital armature. Extremely like *I. dimelæna*, but separable therefrom by its narrower form, smaller size, the excavate labrum, and the slender, sinuate, sharply hooked apical portion of the median lobe.

47. *Idgia indicola*, sp. n.

♂. Elongate, narrow, shining, the elytra duller; finely pubescent and sparsely nigro-setose; testaceous, the head (the labrum and anterior margin of the epistoma excepted), and a rather large apical patch on the elytra, black. Head short, the labrum transverse, flat; eyes very large, narrowly separated; antennæ slender, filiform, moderately long, joint 11 concave, one-half longer than 10. Prothorax slightly wider than the head, longer than broad, strongly sinuate at the sides posteriorly, rugulose punctate. Elytra long, parallel, densely, rugulose punctate, without granules on the disc. Anterior tarsal joints 1-3 with a narrow black comb along their inner edge; terminal dorsal segment narrowly, deeply excised. Genital armature (Pl. XII. fig. 39): lateral lobes long; median lobe, as seen in profile, stout, compressed, and obliquely sloping from a little beyond the middle, the apex drawn out into a short, curved, downwardly-directed point.

Length (excl. head) 8, breadth $2\frac{1}{2}$ mm.

Hab. INDIA, Nilgiri Hills, Teppukadu, alt. 2500 ft. (*H. L. Andrewes*).

One male. Extremely like *I. luteipes*, but with the anterior portion of the head a little shorter, the labrum flat, the elytra slightly narrower (appearing more elongate), and the median lobe very differently shaped. From *I. dimelæna*, ♂, the strongly sinuate sides of the prothorax, the narrow, parallel elytra, and the very different genital armature will serve to distinguish the present species. *I. puncticollis*, Bourg. (1903), length 10-12 mm. (♂ ♀), said to be a common insect "at light" at Pondichery and Mahé, must have a rougher prothorax and shorter antennæ; it has not been identified in the material examined by myself.

48. *Idgia rostrifera*, sp. n.

♀. Elongate, rather dull, thickly pubescent, and sparsely setose; obscure rufo-testaceous, the head (the epistoma and labrum in great part excepted), scutellum, a patch at the apex of the elytra, the sixth ventral segment, and apices of the femora black, the tarsi slightly infuscate. Head long, narrow, the mandibles, epistoma, and labrum elongated, the labrum distinctly longer than broad, foveate in front; eyes large, separated by a rather wide space; antennæ long, slender, filiform, joint 11 constricted at the middle, a little longer than 10. Prothorax longer than broad, much wider than the head, very uneven, and closely, rugulosely punctate. Elytra long, subparallel, densely, rugulosely punctate, and with the usual rows of granules on the disc.

Length (excl. head) 9, breadth 3 mm.

Hab. INDIA, Anamalai Hills (*H. L. Andrewes*).

One specimen. Separable from *I. melanura* and *I. assimilis*, and all the similarly coloured Indian forms known to me, by the anteriorly elongated, subrostrate head, the labrum being longer than broad and foveate in the centre in front. The larger size, black knees and sixth ventral segment, elongate labrum, &c., distinguish *I. rostrifera* from *I. luteipes*, which was found by Mr. Andrewes in the same locality. The Arabian *I. arabica* and *I. laticornis* have a similarly elongate head.

49. *Idgia maindroni*.

Idgia maindroni, Pic, Bull. Soc. Ent. Fr. 1909, p. 245.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge; terminal dorsal segment broadly subtruncate at tip. Genital armature (Pl. XII. fig. 40): lateral lobes broad, moderately long; median lobe broad, as seen from above, abruptly acuminate and hooked at the tip.

Hab. S. INDIA, Wallardi in Travancore [type], Nilgiri Hills (*H. L. Andrewes*: ♂ ♀).

A pair from the Nilgiri Hills are referred to this species. They are very like the larger examples of *I. dimelana*, Walk. (= *cardoni*, Bourg.), but have the head more produced in front and testaceous from the eyes forward, the latter very large in ♂; the elytra relatively longer, more shining, distinctly tricostate on the disc, and with a small black spot at the tip; and the pubescence longer, with very few setæ intermixed.

50. *Idgia nitida*, sp. n.

Elongate, narrow, shining, finely pubescent, and very sparsely setose; testaceous, the head between and behind the eyes, and a small apical patch on the elytra, black. Head slightly produced in front, grooved between the eyes, the labrum transverse, convex; eyes very large, subcontiguous in ♂, more distant in ♀; antennæ slender, subfiliform, joint 11 concave, a little longer than 10. Prothorax about as long as broad, not wider than the head in ♂, broader in ♀, feebly sinuate at the sides posteriorly. Elytra elongate, finely, closely, but not very densely punctate, the interspaces shining. Legs slender.

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge; posterior tibiæ very slightly curved; terminal dorsal segment rounded at tip. Genital armature: lateral lobes rather short; median lobe drawn out into a long, narrow, slightly curved point.

Length (excl. head) $8\frac{1}{2}$ - $10\frac{1}{2}$, breadth $2\frac{1}{2}$ - $3\frac{1}{2}$ mm. (♂ ♀.)

Hab. INDIA (*Stebbing*), Karachi (*T. R. Bell*), Lahore (*coll. Andrewes*).

Six females and two males, both the latter in a bad state of preservation, the locality on Mr. Stebbing's specimens illegible. Separable from the numerous similarly coloured forms by the rather sparsely punctate, shining elytra, and the wholly testaceous antennæ, ante-ocular portion of the head, and legs.

51. *Idgia fruhstorferi*.

Idgia fruhstorferi, Pic, L'Echange, xxvi. p. 76 (1910); Bull. Soc. Ent. Fr. 1910, p. 346.

Elongate, narrow, shining, finely pubescent, and sparsely fusco-setose; testaceous, the head (the epistoma and labrum excepted), and a small spot at the tip of the elytra, black. Head a little produced in front, the labrum transverse; eyes very large, contiguous in ♂, narrowly separated in ♀; antennæ long, slender, joint 11 hollowed within and at least twice as long as 10. Prothorax longer than broad, about as wide as the head, sinuate at the sides posteriorly. Elytra very elongate, densely, finely punctate.

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 41): lateral lobes long, strongly sinuate (as seen from above), incurved and

blunt at the tip ; median lobe feebly sinuate, drawn out into a curved point at the apex.

Length (excl. head) 8-9½, breadth 2½ mm. (♂ ♀.)

Hab. JAVA (*Bowring, Horsfield*).

Four specimens, two of each sex, are referred to *I. fruhstorferi*, Pic, but they differ from his second amended definition in having the head infuscate behind the eyes, which is certainly a variable character. A ♀ from Tenasserim may also belong to the same species? The small apical spot, the wholly testaceous labrum, antennæ, and legs, the long apical joint to the antennæ, and the form of the lateral lobes of the ♂-tegmen are its chief characters. The slender posterior femora of the male separates the present insect from *I. bourgeoisi*, Pic (1906), from the same island, as well as from *I. flavilabris*, from Perak and Penang.

52. *Idgia apicata*.

Idgia apicata, Gorh. Ann. Soc. Ent. Belg. xxxix. p. 320 (1895).

♂. Anterior tarsal joints 1-3 with a black comb along their inner edge ; sixth ventral segment triangularly emarginate at tip. Genital armature (Pl. XII. fig. 42) : lateral lobes long, broad, sinuous on their inner edge above, slightly hollowed near the tip beneath, the apices incurved and obtuse as seen from above ; median lobe sinuate, drawn out into a curved point at apex.

Hab. MALACCA, Singapore (*A. R. Wallace* : ♂ ♀).

Two specimens, ♂ ♀, in the Oxford Museum, from the same source as the type, are presumably referable to *I. apicata*. A narrow, testaceous form, with the head (the anterior portion excepted) and the tips of the elytra black ; the antennæ long and slender, with joint 11 twice as long as 10, and hollowed within ; the eyes very large, contiguous in ♂, very narrowly separated in ♀ ; the elytra somewhat produced at the tip, and with the blackish setæ long and very conspicuous.

53. *Idgia dohertyi*.

Idgia setifrons (Kirsch), var. *dohertyi*, Pic, Bull. Soc. Ent. Fr. 1912, p. 300.

♂. Elongate, narrow, shining, finely pubescent, and sparsely fusco-setose ; pale testaceous, the head around the eyes (in one specimen in great part, the anterior portion excepted), the eyes themselves, and the tips of the elytra,

infusate or black. Head a little produced anteriorly, the labrum transverse; eyes very large, almost or quite contiguous; antennæ long, slender, joint 11 hollowed on its inner face, at least twice as long as 10. Prothorax longer than broad, about as wide as the head, sinuate at the sides posteriorly. Elytra long, densely, finely punctate. Anterior tarsal joints 1-3 with a black comb along their inner edge. Sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 43): lateral lobes long, sinuous on their inner edge above, obliquely truncate on their lower edge before the tip, the apices narrow, curved, and somewhat pointed; median lobe almost straight, gradually tapering to a curved point.

Length (excl. head) $6\frac{3}{4}$ -7, breadth $2\frac{1}{4}$ mm.

Hab. MALACCA, Perak (*Doherty*: type).

Three males from Perak seem to be referable to *I. dohertyi*, Pic, which is treated by him as a pale-legged variety of *I. setifrons*, Kirsch. A form of *I. apicata*, Gorb., with the lateral lobes of the tegmen differently shaped, the basal portion of the head partly testaceous, the elytra more depressed and with their apices a little less produced.

54. *Idgia varicornis*, sp. n.

Elongate, narrow, shining, finely pubescent, and very sparsely setose; luteous, the head and a spot on the apex of the elytra, the antennæ (joint 11 excepted), tibiæ, and tarsi, and the apices of the femora above, infusate or black. Head rather short, the labrum transverse, small; eyes very large, almost contiguous in ♂; antennæ long, slender, joint 11 sinuate, about one-half longer than 10. Prothorax slightly longer than broad. Elytra densely, finely punctate.

♂. Anterior tarsal joints 1-3 with a narrow comb along their inner edge; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 44): lateral lobes moderately long, narrow, simple; median lobe almost straight from near the base, slightly curved and pointed at tip.

Length (excl. head) $6-7\frac{1}{2}$, breadth $2-2\frac{2}{3}$ mm. (♂ ♀.)

Hab. TENASSERIM, Tavoy (*Doherty*: ♂ ♀); ASSAM, Sudiya (*Doherty*: ♀).

One male [type] and five females. A small, narrow, moderately elongate form, with the antennæ and legs partly infusate, the head and the tip of the elytra black, and simple lateral lobes to the ♂-tegmen. Near *I. apicata*, Gorb.

55. *Idgia atriceps*, sp. n.

Elongate, narrow, shining, finely pubescent, and sparsely fusco-setose; testaceous, the head, and a small dull spot at the tip of the elytra, black, the antennæ (joint 11 excepted), tibiæ, and tarsi infuscate. Head rather long, the labrum transverse, small; eyes very large, contiguous in ♂, narrowly separated in ♀; antennæ long, slender, joint 11 hollowed within, twice as long as 10. Prothorax longer than broad, about as wide as the head, sinuate at the sides posteriorly. Elytra elongate, densely, finely punctate.

♂. Anterior tarsal joints with a comb along their inner edge; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 45): lateral lobes comparatively short, broad, sinuously curved as seen from above, hollowed on their lower edge before the tip; median lobe feebly curved, drawn out into a long, strongly arcuate point at the apex.

Length (excl. head), 7-7½, breadth 2-2½ mm. (♂ ♀.)

Hab. BURMA (*Bowring*).

Two males and one female. Separable from the allied forms with partly infuscate limbs, small apical spot, and long terminal joint to the antennæ, by the clear testaceous femora, black head, and ♂-armature. The elytra are much smoother than in *I. indicola* from the Nilgiris, and have a less developed apical patch. *Prionocerus* (*Deromma*) *setifrons*, Kirsch (1875), from Malacca, an insect not identified by myself, must be nearly allied to the present species.

56. *Idgia varipes*, sp. n.

♂. Elongate, very narrow, shining, finely pubescent, and sparsely setose; testaceous, the head, antennæ (joint 11 excepted), and tips of the elytra, the femora along their upper edge, and the tibiæ, and tarsi (the tips excepted), infuscate or black. Head slightly produced anteriorly, the labrum trapezoidal, triangularly depressed in the middle; eyes very large, subcontiguous; antennæ long, slightly widening outwards, joints 3-10 elongate, 4 shorter than 3 or 5, 11 curved, a little longer than 10. Prothorax longer than broad, as wide as the head, constricted posteriorly. Elytra long, narrow, subparallel, densely, finely punctate.

♂. Anterior tarsal joints 1-3 with a narrow comb along their inner edge; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 46): lateral lobes rather short, almost straight, blunt at tip, closely ciliate

on their lower edge; median lobe * drawn out into a short, feebly curved point at apex.

Length (excl. head) $6\frac{1}{2}$, breadth $1\frac{3}{4}$ mm.

Hab. MALACCA, Penang (*H. N. Ridley*).

One male, received at the Museum in 1874. This insect has the general facies of *I. pallidicolor*, ♂, as here identified, differing from it in the distinctly longer, stouter, curved apical joint of the antennæ, the darker limbs, the simply emarginate sixth ventral segment, and different armature. *I. atriceps*, from Burma, has a more elongate apical joint to the antennæ, the head more produced anteriorly, the femora testaceous, and a dissimilar ♂-armature.

57. *Idgia decolor*, sp. n.

Elongate, narrow, shining, finely pubescent, and sparsely fusco-setose; testaceous, the clytra paler and somewhat transparent, the tips of the latter and the head black, the antennæ and legs (the bases of the femora excepted) infusate. Head elongated anteriorly, the labrum about as long as broad; eyes very large, contiguous in ♂, narrowly separated in ♀; antennæ long, slender, joint 11 sinuate, concave within, about one-half longer than 10. Prothorax longer than broad, slightly wider than the head, sinuate at the sides posteriorly. Elytra long, densely, finely punctate.

♂. Anterior tarsal joints 1-3 with a comb along their inner edge; sixth ventral segment triangularly emarginate. Genital armature (Pl. XII. fig. 47): lateral lobes long, rather narrow, feebly curved, blunt at the tip; median lobe very long, slightly sinuate, drawn out into a short, curved point at apex.

Length (excl. head) 8-10, breadth $2\frac{1}{2}$ -3 mm. (♂ ♀.)

Hab. BURMA, Karen Mts. (*Doherty*, type: ♂ ♀); TENASSERIM, Tavoy (*Doherty*: ♀).

One male and six females. Separable from its allies by the pallid, somewhat transparent clytra, with small apical spot, the elongate black head, the infusate antennæ and legs (the bases of the femora excepted), and the ♂-armature, which is very different from that of the allied Burmese *I. atriceps*, the latter also having a relatively longer apical joint to the antennæ. One of the females from Tavoy with wholly pale head (eyes excepted), and another (immature) with the legs and antennæ also testaceous, doubtless belong to the same species.

* In the figure it is removed from its proper position and shown from the ventral aspect.

58. *Idgia angustata*, sp. n.

♂. Elongate, very narrow, shining, finely pubescent, and very sparsely nigro-setose; pale testaceous, the head (the labrum and anterior margin of epistoma excepted), and a small, rounded, sharply defined spot at the tip of the elytra, black, the antennæ (except at the base and apex) slightly infuscate. Head somewhat produced anteriorly, the labrum transverse, trapezoidal; eyes very large, subcontiguous; antennæ long, filiform, joint 11 sinuate, twice as long as 10. Prothorax longer than broad, about as wide as the head, sinuate at the sides posteriorly. Elytra very long, narrow, parallel, densely, finely punctate. Sixth ventral segment triangularly emarginate. Anterior tarsal joints 1-3 with a black comb along their inner edge. Genital armature (Pl. XII. fig. 48): lateral lobes moderately long, sinuately curved as seen from above, deeply emarginate on the lower edge before the tip, the latter obtuse; median lobe curved, drawn out into a short arcuate point at the apex.

Length (excl. head) $7\frac{1}{2}$, breadth 2 mm.

Hab. N. BORNEO, Labuan (*Mus. Brit.*).

One male. Very like *I. pallidicolor*, Pic, but with a long, sinuate, apical joint to the antennæ and a simply emarginate sixth ventral segment. From the same sex of *I. dohertyi*, from Perak, the relatively narrower elytra and different ♂-armature will serve to distinguish the present insect. A female from Sarawak (*Wallace, in Mus. Oxon.*), with larger apical patch, may belong here?

59. *Idgia dubia*.

Cantharis dubia, Gyll. in Schönh. Syn. Ins. i. 2, p. 73, nota (1808).

Idgia dubia, Gemm. and Harold, Cat. Coleopt. vii. p. 1721 (1869).

“Elongata, pallide testacea, antennis, oculis, elytrorum apice pedibusque nigris.—Ind. or.” [*Gyllenhal.*]

Hab. INDIA (*Mus. Brit.*), Patkai Mts., Assam (*Doherty*).

Two females in the Museum collection, with the head wholly testaceous (the eyes excepted), may belong to this species, but the dark mark on the vertex mentioned by Gyllenhal is wanting. They have the antennæ, knees, tibiæ, and a small spot at the tips of the elytra infuscate or black, the antennæ a little shorter than in most of the allied forms, with the terminal joint excavate and about twice as long as the tenth. *I. dubia*, treated by Pic as a “species incerta,” is compared by him with his *I. pallidicolor* from Java.

60. *Idgia pallidicolor*.

Idgia pallidicolor, Pic, L'Echange, xxii. p. 43 (1906); Bull. Soc. Ent. Fr. 1910, p. 346.

♂. Anterior tarsal joints 1-3 with a narrow black comb along their inner edge; terminal dorsal segment emarginate in the middle at tip; sixth ventral segment (Pl. XII. fig. 49 *a*) deeply, narrowly, obliquely bi-excised at apex, the median portion shorter than the broader, truncate, curved lateral portions. Genital armature (Pl. XII. fig. 49): lateral lobes long, narrow, more or less emarginate on their lower edge before the tip; median lobe long, almost straight, curved downward into a blunt point at apex.

Hab. JAVA [type], Depok (*G. E. Bryant*, 18. iv. 1909: ♂); SIAM, Renong (*Doherty*: ♂ ♀); MALACCA, Perak (*Doherty*: ♂ ♀), Penang (*G. E. Bryant*, x. 1913: ♂ ♀); BORNEO, Quop (*G. E. Bryant*, 27. iii. 1914: ♀); TENASSERIM, Tavoy (*Doherty*: ♂ ♀); BURMA, Karen Mts. (*Doherty*: ♂); ASSAM, Patkai Mts. (*Doherty*: ♀).

A small, narrow, shining, pale testaceous form, with the tips of the elytra black; the head usually infusate around the eyes, sometimes wholly testaceous, or with the base black (those from Penang and Borneo); the basal joints of the antennæ, the tibiæ and tarsi, and in some specimens the apices of the femora also, infusate, rarely entirely testaceous; the antennæ long and slender, with the almost simple apical joint about as long as the tenth; the eyes very large, approximate in ♂, narrowly separated in ♀. Amongst the numerous closely allied insects from the same region, *I. pallidicolor*, as here identified, is recognizable by the trilobed sixth ventral segment of the male, and the non-elongated eleventh antennal joint in the two sexes, a character used by Pic in his first table of the Javan and Sumatran forms. Males from the localities quoted have been dissected: those from Java, Tenasserim, and Burma agree *inter se*; but the one from Penang (with blacker head) has the median lobe of the last ventral segment notched in the middle, that from Perak having the corresponding lobe longer, narrower, and rounded at the tip.

61. *Idgia dasytoides*, sp. n.

♀. Elongate, very narrow, slender, moderately shining, closely cinereo-pubescent, and sparsely nigro-setose; green or brassy-green, the antennæ piceous, the basal joints and

tip, and the palpi also, testaceous; the head and prothorax closely, minutely, the elytra densely, rugulosely punctate, the latter with seriatly-arranged raised granules extending down the disc. Head somewhat produced in front, narrow; eyes moderately large, distant, emarginate; apical joint of maxillary palpi elongate-triangular; antennæ very slender, long, joints 4-6 gradually increasing, and 7-10 rapidly decreasing, in length, 3 and 4 subequal in length, 11 as long as 10, constricted at the middle. Prothorax a little longer than broad, the sides rounded anteriorly and feebly sinuate before the base, the disc canaliculate. Elytra long, subparallel, much wider than the prothorax, rounded at the tip. Legs long, very slender; tarsal claws widened in their basal half.

Length (excl. head) 5, breadth $1\frac{1}{2}$ mm.

Hab. BURMA, Karen Mts. (*Doherty*).

Six examples. This species has the general facies of a *Dasytes*, from which it is readily distinguished by the emarginate eyes, a character bringing *I. dasytoides* into the "Prionocérides" of Lacordaire. In the absence of the male, it can remain under *Idgia* for the present, the Chinese *I. flavirostris*, Pasc., having similar tarsal claws, slender legs and antennæ, a small head, &c.

Alphabetical numbered list of the species of *Prionocerus* and *Idgia* enumerated in this paper, the generic name indicated of those placed under the first-named genus; the new names marked with an asterisk:—

- | | |
|--|--------------------|
| *abyssinica, 5. | *dichroa, 37. |
| andrewesi, 20. | dimelæna, 44. |
| *angustata, 58. | dimidiata, 2. |
| apicalis, 4. | dohertyi, 53. |
| apicata, 52. | dubia, 59. |
| *arabica, 9. | *femorata, 24. |
| assimilis, 40. | flavibuccis, 45. |
| *atriceps, 55. | flavicollis, 13. |
| belli, 18. | *flavilabris, 35. |
| bicolor (<i>Prionocerus</i>), 2. | flavirostris, 14. |
| *cæruleiventris, 27. | *flavolimbata, 32. |
| *cavilabris, 28. | fruhstorferi, 51. |
| chloroptera, 21. | fulvicollis, 8. |
| cæruleipennis (<i>Prionocerus</i>), 1. | *geniculata, 36. |
| cyanea, 7. | gorhami, 25. |
| *cyanocephala, 22. | *indicola, 47. |
| *cyanura, 43. | *javana, 30. |
| *dasytoides, 61. | *laticornis, 10. |
| *decolor, 57. | *longipalpis, 6. |
| densta, 11. | longissima, 42. |

*luteipes, 46.
 *maculiventris, 34.
 maindroni, 49.
 *marginata, 31.
 melanocephala, 39.
 melanura, *Kollar & Redt.*, 41.
 *nilgirica, 26.
 *nitida, 50.
 pallidicolor, 60.
 *plectrophora, 1.
 *rostrifera, 48.
 rouyeri, 23.
 *semitecta, 38.
 terminata, 3.
 *triserrata, 16.
 *uncigera, 29.
 *ungulata, 12.
 *varicornis, 54.

*varipes, 56.
 *virescens, 15.
 viridescens, 19.
 viridipennis, 17.
 *viridivittata, 33.

SYNONYMS and VARIETIES.

brevicornis (*Prionocerus*), 1.
 cæruleatus, 18.
 cardoni, 44
 ceylonica, 39.
 diversipennis, 25.
 forticornis (*Prionocerus*), 1.
 fuscipennis (*Prionocerus*), 1.
 melanura, *Muls. & Bourg.*, 40.
 metallescens, 19.
 notaticollis (*Prionocerus*), 2.
 tripartita, 2.

EXPLANATION OF PLATES XI. & XII.

Figs. 1-49. Profile views of the ♂ genital armature of species of *Prionocerus* and *Idgia*, one only of the lateral lobes shown and the free tubular median lobe lowered from its normal position, so that a clearer outline could be given of it, the apical portion of the sac (when visible in the dried specimens) added; 9 a and 10 a, dorsal views of 9 and 10, the median lobe omitted in 9 a; 49 a, sixth ventral segment of *I. pallidicolor*, ♂; 50, apices of elytra of *I. uncigera*, ♀; all × 12. In fig. 46 the median lobe is out of its normal position, and shown from the ventral aspect.

XXXIV.—*A Note on the Egg-burster of Eucephalous Fly-larvæ.* By F. W. EDWARDS.

IN widely separated divisions of the animal kingdom special embryonic organs are found whose function is to facilitate the hatching of the embryo from the egg. Everyone is familiar with the hard knob which occurs on the tip of the upper jaw in the chick as well as in other oviparous vertebrates. Among the Insecta egg-bursting organs are often found on the dorsal surface of the head, and assume a variety of forms. Different types have been described by Packard ('Text-book of Entomology,' p. 585), Berlese ('Gli Insetti,' vol. 2, p. 218), and Williams and Buxton (Trans. Ent. Soc. London, 1916, p. 88). In other cases these organs appear to be part of the amnion rather than of the embryo itself; instances of this are given by Riley (*vide* Packard, Text-book, p. 585) and Kershaw (Bull. Trinidad Dept. Agric. xii. 1913, p. 94).